



## Environment and Natural Resources Trust Fund

M.L. 2026 Draft Work Plan

### General Information

**ID Number:** 2026-089

**Staff Lead:** Michael Varien

**Date this document submitted to LCCMR:** December 15, 2025

**Project Title:** Salvage Wildlife Phase 2: Roadkill to Scientific Records

**Project Budget:** \$673,000

### Project Manager Information

**Name:** Keith Barker

**Organization:** U of MN - Bell Museum

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**Email:** barke042@umn.edu

**Web Address:** <https://www.bellmuseum.umn.edu/>

### Project Reporting

**Reporting Schedule:** April 1 / October 1 of each year.

**Project Completion:** June 30, 2029

**Final Report Due Date:** August 14, 2029

### Legal Information

**Legal Citation:**

**Appropriation Language:**

**Appropriation End Date:** June 30, 2029

## Narrative

**Project Summary:** We will expand and support the statewide Salvage Wildlife network, prepare dead wildlife as museum-quality specimens, and build biodiversity resources for research, education, and conservation of Minnesota's wildlife.

**Describe the opportunity or problem your proposal seeks to address. Include any relevant background information.**

Every day wild animals are injured or killed due to both natural and anthropogenic causes, such as collisions with windows, powerlines, and vehicles. Many local organizations and agencies have permits to salvage deceased wildlife for scientific or educational use, and new federal guidelines make this process more accessible to the public. Unfortunately, only a portion of these animals can be made available for scientific research, although they are informative regarding multiple aspects of environmental health, including tracking disease outbreaks, tracing toxin prevalence, and understanding ecological interactions. Each animal carries a wealth of information: not just what species it is, but also a record of where, when, and how it existed - offering a powerful lens into an ecosystem that humans share. Given ongoing disease outbreaks (e.g., HPAI) and declining populations of animals critical to ecosystem health (e.g., pollinators), building a strong network of environmental surveillance is key to managing future impacts. By developing the Salvage Wildlife network, we sought to convert deceased wildlife into museum specimens to provide these critical data. This network now provides more specimens annually than we currently have the capacity to process, an opportunity for growth that we are now well positioned to develop.

**What is your proposed solution to the problem or opportunity discussed above? Introduce us to the work you are seeking funding to do. You will be asked to expand on this proposed solution in Activities & Milestones.**

We propose to support and expand the Salvage Wildlife network, with an emphasis on specimen production and data capture. To date, we have recruited 22 institutions in 14 counties statewide into this network, significantly increasing salvage rates for wildlife from throughout the state. However, we lack members from far southwestern and northwestern Minnesota, and we propose to recruit new institutions from these critical regions. We estimate that our museums have accepted over 6000 salvaged birds and mammals from the existing network, exceeding our current capacity to process this backlog and keep up with new accessions. We propose to double our specimen production capacity by supporting full-time specimen preparators at both the Bell Museum and the Science Museum of Minnesota. These skilled museum professionals will prepare museum-quality specimens as well as train and supervise a cadre of undergraduate student and volunteer curatorial assistants. In addition, both institutions have full-time collections managers who will dedicate 10% of their time to support of this project, primarily focusing on data capture and dissemination for salvaged specimens. This increased effort will allow us to convert this backlog of salvaged wildlife into useful biological data and specimens, and will streamline processing of incoming material.

**What are the specific project outcomes as they relate to the public purpose of protection, conservation, preservation, and enhancement of the state's natural resources?**

Our project will expand the LCCMR-funded Salvage Wildlife Network to create an ongoing record of Minnesota's biodiversity. Specifically, we will 1) prepare thousands of new specimens recording Minnesota's animal diversity, 2) maintain a communication network (through web presence and email reports) among conservation and management professionals centered on archiving biodiversity, 3) use the Minnesota Biodiversity Atlas to organize and disseminate location, time, species, and associated environmental information for newly collected and prepared specimens created by our work, and 4) provide public engagement programs across the state to raise awareness about Minnesota wildlife and the challenges it faces.

## Project Location

**What is the best scale for describing where your work will take place?**

Statewide

**What is the best scale to describe the area impacted by your work?**

Statewide

**When will the work impact occur?**

During the Project and In the Future

## Activities and Milestones

### Activity 1: Roadkill to salvage: maintaining and growing Minnesota's salvage wildlife network

**Activity Budget:** \$67,300

#### Activity Description:

With previous LCCMR funding, the Bell Museum and Science Museum of Minnesota (SMM) established a network of 22 partners statewide, ranging from state agencies to wildlife rehabilitators to environmental consultants. These partners accept salvaged wildlife carcasses and store them in freezers until they can be brought to the museums for specimen preparation and data collection. Through this network, we have accepted over 4000 birds and 2000 mammals for processing at the Bell Museum and SMM; it takes substantial effort to convert these carcasses into an invaluable resource to study wildlife. Here, we seek continued support to acquire specimens from these partners and to build this network to include additional participants. We will travel to partner institutions at least twice per project year to collect specimens, and we will solicit new partners from underrepresented regions of the state (e.g. far southwestern and northwestern Minnesota; see accompanying map). Since we launched our initial LCCMR-funded project, the Salvage Wildlife Network has proven to be tremendously popular. Maintaining and growing this network will continue the significant collections and data growth made possible by our collective efforts.

#### Activity Milestones:

Description	Approximate Completion Date
Recruit new partners from underrepresented areas of Minnesota, providing critical wildlife salvage from these regions.	December 31, 2027
Send annual report to network participants (years 1-3)	June 30, 2028
Participate in public outreach efforts (State Fair, Master Naturalists; years 1-3)	June 30, 2028
Travel twice per year to acquire specimens for preparation (years 1, 2, and 3)	June 30, 2029
Host annual meetings to assess partner needs and capacity for growth (years 1-3)	June 30, 2029

### Activity 2: Salvage to specimens: scaling up data acquisition from salvaged wildlife

**Activity Budget:** \$511,480

#### Activity Description:

Preparation of museum-quality specimens is technical work that requires a skilled preparator to convert carcasses into skeletons, dried skins, and frozen tissues. With previous LCCMR funding, we hired an outstanding preparator, who assembled, trained and led a team of part-time student assistants (4 high-school students and 11 undergraduates). These students represent a broad swath of the community, and include future veterinary students, wildlife managers, artists, and educators. Through the Salvage Wildlife project, they experience the diversity of Minnesota's vertebrate fauna, while they learn comparative anatomy, natural history, parasitology, and other aspects of biology that aren't taught in the standard curriculum. Although few of them will be employed as preparators or taxidermists, they value the skills they learn in this program, and we currently have a long waitlist of interested students. Over the past year, this team has prepared over 400 bird and 200 mammal specimens from the Salvage Wildlife program (~10% of backlog). Here, we seek to (1) continue funding for the lead preparator at the Bell Museum, (2) hire a second preparator at the SMM, and (3) continue employing a team of part-time student workers, who will be trained in all aspects of specimen processing.

#### Activity Milestones:

Description	Approximate Completion Date
Employ two museum preparators, enhancing production of the state's biodiversity data (years 1-3)	June 30, 2029

Communicate ongoing salvage efforts through professional conference attendance and presentations (years 1-3)	June 30, 2029
Train students in specimen preparation, data collection, and data management (years 1-3)	June 30, 2029
Prepare at least 1000 museum-quality specimens per year (years 1-3)	June 30, 2029

### Activity 3: Specimens to data: digitizing Minnesota vertebrate specimen data

**Activity Budget:** \$94,220

#### Activity Description:

The specimens created from salvaged wildlife only become available to the research community when their associated data have been captured electronically and served through public databases. Thus, digitization of specimen data is a critical component of this work. This is a highly skilled process that requires careful training by an expert in both organismal biology and museum data curation. For instance, one of the most critical pieces of data is where a specimen was collected (georeferencing), and carefully and repeatably quantifying the precision in that data is paramount for downstream users. Collections managers at the Bell and SMM are experts in this process and will take the lead in this, including training several graduate-level curatorial assistants. Both the Bell Museum and Science Museum of Minnesota make their specimen data available through the Minnesota Biodiversity Atlas, a database of Minnesota biodiversity developed with support from the LCCMR and a critical resource for researchers and natural resource managers statewide. In addition, these data are shared with international data repositories such as iDigBio and the Global Biodiversity Information Facility, making them easily accessible to the global community.

#### Activity Milestones:

Description	Approximate Completion Date
Support trained museum data managers to digitize specimen data into electronic biodiversity databases (years 1-3)	June 30, 2029
Train one graduate student annually in museum data curation (years 1-3)	June 30, 2029
Publish Salvage Wildlife data to online databases including the MN Biodiversity Atlas (years 1-3)	June 30, 2029

## Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Sharon Jansa	University of Minnesota	co-Principal Investigator	Yes
Sushma Reddy	University of Minnesota	co-Principal Investigator	Yes
Catherine Early	Science Museum of Minnesota	co-Principal Investigator	Yes

## Dissemination

**Describe your plans for dissemination, presentation, documentation, or sharing of data, results, samples, physical collections, and other products and how they will follow ENRTF Acknowledgement Requirements and Guidelines.**

We will disseminate information about the progress and results of our project in multiple ways. All of activities, communication products, and outreach program will acknowledge the Environment and Natural Resources Trust Fund through use of the trust fund logo or attribution language on project print and electronic media, publications, signage, and other communications per the ENRTF Acknowledgment Guidelines. Here are specific plans for dissemination of information.

- 1- Maintain a website (<https://www.bellmuseum.umn.edu/salvage-wildlife/>) that provides collaborating institutions and the public information about our project and ways to participate. This site is publicly accessible and will include annual progress reports.
- 2- Maintain a communication network among participants to share information and develop new collaborations. We expect to be able to use internet technology to bring together different organizations related to wildlife. In-person meetings might also be facilitated by some of public engagement programs (see below).
- 3- Use the Minnesota Biodiversity Atlas (previously funded by LCCMR) to organize location, time, species, and associated environmental information. This public and easy to use tool is a great way for the public to interact with the data produced from our project.
- 4- Provide public engagement programs across the state. We aim to showcase the importance of biodiversity specimens and our ability to utilize them to uncover hidden connections between species. As we travel the state to collect samples from different institutions, we aim to work with our collaborators to provide informal talks, demonstrations, and/or educational events.
- 5- Create annual reports for our network about our progress and highlights of the project. These reports will be distributed to all collaborators as electronic newsletters and be uploaded on the website.

We aim to use the information gathered from our project to inform the public and policy makers about human-related impacts on wildlife. We will acknowledge all participants and funding sources in all our communications and products.

## Long-Term Implementation and Funding

**Describe how the results will be implemented and how any ongoing effort will be funded. If not already addressed as part of the project, how will findings, results, and products developed be implemented after project completion? If additional work is needed, how will this work be funded?**

We have successfully created a statewide network to collect and archive samples of Minnesota wildlife, but that is just the beginning. Recent staffing investments by the Bell Museum and Science Museum of Minnesota have enhanced our capacity to be the stewards of Minnesota's biodiversity data. The acquisition of thousands of samples statewide further

stimulates research and connects scientists who are interested in analyzing them for studies of environmental health and resource management. The success of this project has already excited students to participate in innovative and integrative science and will continue to do so into the future.

### Other ENRTF Appropriations Awarded in the Last Six Years

Name	Appropriation	Amount Awarded
Salvaged Wildlife to Inform Environmental Health, Ecology, Education	M.L. 2023, , Chp. 60, Art. 2, Sec. 2, Subd. 03i	\$486,000

## Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
<b>Personnel</b>								
F. Keith Barker		Project Director			36.3%	0.06		\$8,000
Sharon Jansa		Faculty			36.6%	0.06		\$9,000
Sushma Reddy		Faculty			36.6%	0.06		\$8,000
Angela Hornsby		Collections Manager			36.6%	0.24		\$28,000
Samantha Getty		Curatorial Research Associate/Preparator			32.3%	3		\$198,000
Curatorial Graduate Student		Curatorial Graduate Student-50% time during the summer only			23.2%	0.39		\$31,000
Undergrad curatorial assistants		Undergrad curatorial assistants-Approximately 60 hrs/week			0%	2.07		\$139,000
							<b>Sub Total</b>	<b>\$421,000</b>
<b>Contracts and Services</b>								
Science Museum of Minnesota	Subaward	Collections Manager(.1 FTE/year for 3 years \$31,000); Research Technician/Preparator (1 FTE/year for 3 years \$172,000), Curator (.2 FTE/year for 3 years \$16,000), supplies (\$10,000)				3.9		\$230,000
							<b>Sub Total</b>	<b>\$230,000</b>
<b>Equipment, Tools, and Supplies</b>								
	Tools and Supplies	Sample tubes, boxes and preparation supplies	Supplies to collect, prepare and store samples					\$6,000
							<b>Sub Total</b>	<b>\$6,000</b>
<b>Capital Expenditures</b>								
							<b>Sub Total</b>	<b>-</b>



<b>Acquisitions and Stewardship</b>								
							<b>Sub Total</b>	-
<b>Travel In Minnesota</b>								
	Miles/ Meals/ Lodging	Pickup trips to partner institutions	To conduct outreach activities and carcass collection, 3 times per year, includes lodging, per diem for 1 person for 3 days (\$96 lodging, \$59 M&I).					\$13,000
							<b>Sub Total</b>	<b>\$13,000</b>
<b>Travel Outside Minnesota</b>								
	Conference Registration Miles/ Meals/ Lodging	Conference/Meeting Registration. Once during the project.	Communicating results of ongoing salvage efforts to museum colleagues	X				\$2,000
							<b>Sub Total</b>	<b>\$2,000</b>
<b>Printing and Publication</b>								
	Printing	Printing of informational brochures	Informational brochures to make sure organizations throughout MN are informed about project and steps needed to take with samples collected					\$1,000
							<b>Sub Total</b>	<b>\$1,000</b>
<b>Other Expenses</b>								
							<b>Sub Total</b>	-
							<b>Grand Total</b>	<b>\$673,000</b>

## Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request
<b>Travel Outside Minnesota</b>	Conference Registration Miles/Meals/Lodging	Conference/Meeting Registration. Once during the project.	Our project has gained national attention through presentations at previous conferences. This attention raises the profile of the state on a national stage, and garners additional support for our project (logistical and otherwise) both on a state and national level.

## Non ENRTF Funds

Category	Specific Source	Use	Status	\$ Amount
<b>State</b>				
			<b>State Sub Total</b>	-
<b>Non-State</b>				
In-Kind	University of Minnesota	Unrecovered Facilities and Administrative costs	Secured	\$239,220
In-Kind	Science Museum of Minnesota	Unrecovered Facilities and Administrative costs	Secured	\$13,500
In-Kind	University of Minnesota	PI Barker Salary and Benefits	Secured	\$8,000
In-Kind	University of Minnesota	PI Reddy Salary and Benefits	Secured	\$8,000
In-Kind	University of Minnesota	PI Jansa Salary and Benefits	Secured	\$9,000
			<b>Non State Sub Total</b>	<b>\$277,720</b>
			<b>Funds Total</b>	<b>\$277,720</b>

**Total Project Cost: \$950,720**

**This amount accurately reflects total project cost?**

Yes

## Attachments

### Required Attachments

#### *Visual Component*

File: [6e9cb3d5-134.pdf](#)

#### *Alternate Text for Visual Component*

This document illustrates the three phases of this project: 1) Supporting and growing the Salvage Wildlife network and continuing to acquire deceased animals, 2) Processing carcasses into high quality museum specimens, and 3) Capturing data associated these specimens and adding them to biodiversity databases including the Minnesota Biodiversity Atlas....

### Supplemental Attachments

#### *Capital Project Questionnaire, Budget Supplements, Support Letter, Photos, Media, Other*

Title	File
Science Museum Letter of Support	<a href="#">edb21957-59c.pdf</a>
UMN Approval Letter	<a href="#">927697a6-9ce.pdf</a>

### Difference between Proposal and Work Plan

#### *Describe changes from Proposal to Work Plan Stage*

We adjusted budget amounts to match our final recommended amount, added our dissemination plans, and responded to staff comments.

## Additional Acknowledgements and Conditions:

The following are acknowledgements and conditions beyond those already included in the above workplan:

**Do you understand and acknowledge the ENRTF repayment requirements if the use of capital equipment changes?**

N/A

**Do you understand that travel expenses are only approved if they follow the "Commissioner's Plan" promulgated by the Commissioner of Management of Budget or, for University of Minnesota projects, the University of Minnesota plan?**

Yes, I understand the UMN Policy on travel applies.

**Does your project have potential for royalties, copyrights, patents, sale of products and assets, or revenue generation?**

No

**Do you understand and acknowledge IP and revenue-return and sharing requirements in 116P.10?**

N/A

**Do you wish to request reinvestment of any revenues into your project instead of returning revenue to the ENRTF?**

N/A

**Does your project include original, hypothesis-driven research?**

No

**Does the organization have a fiscal agent for this project?**

No

**Does your project include the pre-design, design, construction, or renovation of a building, trail, campground, or other fixed capital asset costing \$10,000 or more or large-scale stream or wetland restoration?**

No

**Do you propose using an appropriation from the Environment and Natural Resources Trust Fund to conduct a project that provides children's services (as defined in Minnesota Statutes section 299C.61 Subd.7 as "the provision of care, treatment, education, training, instruction, or recreation to children")?**

No

**Provide the name(s) and organization(s) of additional individuals assisting in the completion of this project:**

Holly Menninger (ED, Bell Museum); Jennifer Olson (Finance Professional, Bell Museum)

**Do you understand that a named service contract does not constitute a funder-designated subrecipient or approval of a sole-source contract? In other words, a service contract entity is only approved if it has been selected according to the contracting rules identified in state law and policy for organizations that receive ENRTF funds through direct appropriations, or in the DNR's reimbursement manual for non-state organizations. These rules may include competitive bidding and prevailing wage requirements**

N/A