

Environment and Natural Resources Trust Fund

2026 Request for Proposal

General Information

Proposal ID: 2026-080

Proposal Title: Increasing Pollinator Conservation Action Through Education and Engagement

Project Manager Information

Name: Elaine Evans

Organization: U of MN - College of Food, Agricultural and Natural Resource Sciences

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Project Basic Information

Project Summary: A comprehensive pollinator education program for volunteers, Veterans, and beekeepers will increase pollinator conservation awareness and adoption of action steps. Volunteers will collect data to inform pollinator conservation recommendations.

ENRTF Funds Requested: \$518,000

Proposed Project Completion: June 30, 2029

LCCMR Funding Category: Education and Outdoor Recreation (C)

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

Narrative

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

Bees are crucial pollinators inspiring an interest in Minnesota's natural resources. Despite Minnesota's national leadership in pollinator conservation, many Minnesotans don't know how to protect and conserve pollinators. The University of Minnesota Bee Lab developed materials to promote pollinator conservation, but needs help delivering expert-informed messages broadly across the state and to new audiences. Beekeepers, a mostly untapped audience, are experts regarding one species, the honey bee, but may not be aware of conservation needs of the ~500 other bee species in Minnesota. The UMN Bee Lab currently engages Veterans through our Bee Vets program, which provides free beekeeping education for Minnesota Veterans, but this program has not integrated native pollinator conservation activities.

While we have clear action steps for pollinator conservation generally, some pollinators need more data to inform recommendations. For example, the endangered rusty-patched bumblebee may nest in a broad range of habitats, but data limitations prevent us from knowing specific habitat characteristics. Current protections consist of limiting prescribed burns across all habitats during times of active nesting (April-September). However, prescribed fire is a necessary management tool. With more bumblebee nesting habitat information, lands could be efficiently managed while still protecting endangered species such as the rusty-patched bumblebee.

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 increase conservation by training volunteers to provide education through the Pollinator Ambassador program and increase understanding of bumblebee nesting by engaging volunteers to collect data through the Nest Quest program. We will integrate native pollinator education into our Bee Vets program for Minnesota Veterans. We will exponentially increase our impact by engaging knowledgeable Minnesotans and empowering them to protect pollinators and their habitat.

Pollinator Ambassador volunteers will receive training and a Pollinator Education Toolkit, a set of engagement tools previously developed with ENTRF funding. Integrating new communities and perspectives is key to success. We will work with partners to develop education materials about Indigenous pollinator knowledge and adapt pollinator conservation messaging to connect with beekeepers across the state. By providing training to Lawns to Legumes Pollinator Pathways trainers, we can scaffold pollinator education onto recent pollinator habitat projects. Engaging veterans through in-hive experiences with honey bees can ignite curiosity about bees and open the door for conversations about bee conservation.

Nest Quest volunteers will monitor habitat to support and improve management and conservation strategies for bumblebees, including at risk species such as the rusty-patched bumblebee. Engaging volunteers to help us search for nests can inform management recommendations.

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?

We expect Pollinator Ambassador volunteer educators to reach ~30,000 Minnesotans with pollinator conservation action steps. Engaging new audiences and including Minnesota Veterans in these programs will empower them to deliver information to their own communities and collect data across the entire state, broadening the scope of our impact. Volunteer-collected data on bumblebee nesting habitat will inform best management practices to support bumblebees including seven bumblebee species of conservation concern. Comprehensive pollinator education will empower our participants to actively conserve MN pollinators and pollinator habitat.

Activities and Milestones

Activity 1: Increase access to pollinator education and adoption of conservation action steps by training volunteers to become Pollinator Ambassadors.

Activity Budget: \$210,000

Activity Description:

We will increase access to pollinator education and adoption of conservation action steps by training volunteers to lead educational events as Pollinator Ambassadors. As public concern for pollinators grows amidst declining pollinator populations, the demand for pollinator education grows. To bridge the gap between demand for expert input and capacity, educators at the University of Minnesota Bee Lab developed training materials to equip volunteers to teach pollinator conservation action steps. Our already developed course provides background information on pollinator biology and diversity, details actions to help pollinators, and best practices for volunteering at an event or giving a presentation. We will develop new materials, including Indigenous pollinator knowledge, recruit and engage volunteers that can reach underrepresented areas of the state, and include Lawns to Legumes Pollinator Pathways trainers to take advantage of the educational value of established pollinator habitat. Volunteers that complete Pollinator Ambassador training will receive Pollinator Education Toolkits (previously developed with ENTRF funding). Each Pollinator Ambassador volunteer will deliver 5 educational events each year. We estimate volunteers will reach 30,000 Minnesotans over the program length. We will use evaluation to improve training materials. We will gather data from attendees at educational events to evaluate conservation impacts.

Activity Milestones:

| Description | Approximate Completion Date |
|---------------------------------------------------------------------------------------------------------------------|-----------------------------|
| Recruit potential volunteers, prioritizing underrepresented areas of Minnesota. | December 31, 2026 |
| Work with Native educators to develop training on Indigenous pollinator knowledge. | February 28, 2027 |
| Provide 4 trainings (~20 volunteers). Provide Pollinator Education Toolkits. Volunteers will engage ~10,000 people. | October 31, 2027 |
| Evaluate volunteer training effectiveness and adapt training. Develop new training modules as appropriate. | December 31, 2027 |
| Provide 4 trainings (additional ~20 volunteers). Provide Toolkits. Volunteers will engage ~20,000 people. | October 31, 2028 |
| Evaluate volunteer training effectiveness. | December 31, 2028 |
| Evaluate overall impacts and adoption of conservation actions by attendees of events delivered by Ambassadors. | June 30, 2029 |

Activity 2: Pollinator conservation education for Minnesota bee clubs and beekeeper Veterans

Activity Budget: \$125,000

Activity Description:

To increase awareness of the importance of all pollinators, we will engage beekeepers and beekeeping Veterans. Beekeepers are typically a highly engaged group that frequently interact with the public about their hobby. One of the primary questions beekeepers receive is about how to help bees. With beekeeper input, we will develop a module in the Pollinator Ambassador training specifically on speaking with beekeepers on the importance of all pollinators and the different needs of honey bees and native pollinators. Our goal is to provide beekeepers with tools to engage others about pollinator conservation and take action steps themselves. We will encourage beekeepers to join the Pollinator Ambassadors program. Bee Lab staff and Pollinator Ambassadors (from Activity 1) will provide educational programming on native pollinators conservation for beekeeping clubs across Minnesota.

We will build on our established UMN Beekeeping for Veterans program that attracts 20-40 veterans per hands-on

beekeeping workshop. For three workshops, we will include native pollinator-focused activities and connect interested participants to our Pollinator Ambassador program. We will use evaluations to determine the impact of the sessions on conservation actions. We will share evaluation results with partners, such as the national beekeeping program for veterans, Heroes to Hives.

Activity Milestones:

| Description | Approximate Completion Date | |
|---------------------------------------------------------------------------------------------------------|-----------------------------|--|
| Lead 8 in-person sessions for Bee Vets participants on beekeeping and native pollinators (20-40 people) | October 31, 2026 | |
| Work with beekeepers to develop training materials on native pollinator conservation steps for | February 28, 2027 | |
| beekeepers | | |
| Develop a Pollinator Ambassador training module for interacting with beekeeping clubs | February 28, 2027 | |
| Lead 8 in-person sessions for Bee Vets participants on beekeeping and native pollinators (20-40 people) | October 31, 2027 | |
| Coordinate 2 pollinator conservation sessions for beekeeping clubs (~50 beekeepers) | October 31, 2027 | |
| Evaluate effectiveness of training materials and adapt as needed | December 31, 2027 | |
| Lead 8 in-person sessions for Bee Vets participants on beekeeping and native pollinators (20-40 people) | October 31, 2028 | |
| Coordinate 2 pollinator conservation sessions for beekeeping clubs (~50 beekeepers) | October 31, 2028 | |
| Evaluate overall impacts and adoption of conservation actions by Bee Vets participants | June 30, 2029 | |

Activity 3: Protect bumblebee nesting habitat by refining and sharing best management practices informed by bumblebee Nest Quest volunteer data

Activity Budget: \$183,000

Activity Description:

Minnesota is home to 25 bumblebee species, including 8 of conservation concern. We generally have good information about bumblebee floral use, but lack data-based management practices with sufficient detail to efficiently manage and conserve bumblebee nesting habitat. For example, current protection of endangered rusty-patched bumblebee nesting includes a broad range of habitats, leading to limitations in burning as an efficient and effective management tool during times of active nesting (April to September). By refining management practices, conservation land managers could both protect bumblebee nesting habitat and efficiently manage conservation lands. The public could also better enhance habitat on private land. Bumblebee Nest Quest will engage volunteers across Minnesota to collect data about bumblebee nests. Simple and non-invasive methods enable participation by volunteers with minimal training and in a wide variety of habitats, including areas that are home to protected species such as the rusty-patched bumblebee. The results will help create data-driven bumblebee nesting habitat recommendations We will develop educational resources, including workshops for conservation land managers and a hand-out aimed at the general public to provide best management practices for conserving bumblebee nesting habitat.

Activity Milestones:

| Description | Approximate | |
|--------------------------------------------------------------------------------------------------|------------------|--|
| | Completion Date | |
| Provide 6 trainings to engage ~50 volunteers (~250 survey hours) | October 31, 2027 | |
| Provide 6 trainings to engage an additional ~50 volunteers (~500 survey hours) | October 31, 2028 | |
| Summarize findings into state-wide habitat recommendations to conserve bumblebee nesting habitat | June 30, 2029 | |
| Provide 3 workshops to conservation and managers and develop a hand-out with nesting habitat | June 30, 2029 | |
| recommendations | | |

Project Partners and Collaborators

| Name | Organization | Role | Receiving |
|----------------|---------------|--------------------------------------------------------------------------------|-----------|
| | | | Funds |
| Dr. Katie Lee | University of | Co-PI: Apiculture Extension Educator who oversees beekeeping education | Yes |
| | MN Extension | components of grant proposal | |
| Jessica Helgen | University of | Bee Squad Program Coordinator: Trains and supervises Bee Squad staff, develops | Yes |
| | MN Bee Squad | curriculum for workshops, teaches at workshops | |

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?

The Pollinator Ambassadors program will remain active via the Pollinator Ambassadors website and online training course. Participants who received Pollinator Toolkits will be able to use the kits independently, with the option of downloading updated materials.

Bumblebee Nest Quest volunteers will be able to continue contributing sightings of bumblebee nests to the bumblebee Watch website and data used to continue to inform bumblebee habitat recommendations.

The UMN Bee Squad will use donor funds to support the Beekeeping for Veterans program before and after completion of the grant and will supply honeybee colonies and equipment.

Other ENRTF Appropriations Awarded in the Last Six Years

| Name | Appropriation | Amount |
|-----------------------------------------------|-----------------------------------------------------------|-----------|
| | | Awarded |
| Pollinator Education In The Science Classroom | M.L. 2021, First Special Session, Chp. 6, Art. 6, Sec. 2, | \$366,000 |
| | Subd. 05b | |

Project Manager and Organization Qualifications

Project Manager Name: Elaine Evans

Job Title: Associate Extension Professor

Provide description of the project manager's qualifications to manage the proposed project.

Dr. Elaine Evans, Associate Extension Professor UMN, was PI for two previous ENTRF funded projects (Pollinator Education in the Science Classroom, Pollinator Ambassadors Program for Gardens) and co-PI for another (Minnesota Bee Atlas). Her extension programming for pollinators has been recognized with regional and international awards for science communication and extension education. Dr. Evans' role for the Increasing Pollinator Conservation Action Through Education and Engagement project would be to oversee development of education materials, provide expertise in native bee biology, develop and analyze data for bumblebee nesting habitat, and submit project reports. She has a proven record of leading educational programming with conservation impacts.

Organization: U of MN - College of Food, Agricultural and Natural Resource Sciences

Organization Description:

The University of MN Bee Squad was founded in 2011 by honey bee professor Dr. Marla Spivak to be the outreach and public-facing branch of the University of MN Bee Lab, housed in the College of Food and Natural Resource Sciences (CFANS). The University of MN Bee Lab's mission is to promote the conservation, health, and diversity of bee pollinators through research, education, and hands-on mentorship. The Bee Squad collaborates on research projects and public

engagement with UMN Extension Educators Dr. Elaine Evans and Dr. Katie Lee. The Bee Squad team includes beekeepers, native bee researchers, and educators who work together to disseminate scientific research and conservation action steps to the public.

Budget Summary

| Category / Name | Subcategory or Type | Description | Purpose | Gen. Ineli gible | % Bene fits | # FTE | Class ified Staff? | \$ Amount |
|-----------------------------------------------------------------------|------------------------|----------------------------------------------------------------------------------------------|---------|------------------------|-------------------|----------|--------------------|-----------|
| Personnel | | | | _ | | | | |
| Principal Investigator | | Oversees project implementation and development of educational materials | | | 36.6% | 0.75 | | \$89,622 |
| Co-Principal Investigator | | Oversees beekeeping projects | | | 36.6% | 0.15 | | \$17,295 |
| UMN Bee Squad Program Coordinator | | Develops curriculum for workshops, trains and oversees Bee Squad staff, teaches at workshops | | | 36.6% | 0.75 | | \$80,757 |
| Bee Squad Beekeeping for Veterans Instructor | | Design and deliver beekeeping and native pollinator workshops | | | 32.3% | 0.36 | | \$28,644 |
| Bee Squad Beekeeping for Veterans instructor | | Design and deliver beekeeping and native pollinator workshops | | | 7.4% | 0.36 | | \$19,944 |
| Bee Squad Pollinator Ambassadors and Bumblebee Nest Quest Coordinator | | Design and deliver in-person and online workshops. Manage volunteers. | | | 32.3% | 1.86 | | \$138,028 |
| Bee Squad Pollinator Ambassadors and Bumble Bee Nest Quest Instructor | | Assists with in-person and online workshops | | | 32.3% | 0.36 | | \$29,381 |
| Bee Squad Educational Materials Developer | | Develops educational hand-outs and materials for workshops | | | 32.3% | 0.75 | | \$70,018 |
| · | | | | | | | Sub Total | \$473,689 |

| Contracts and Services | | | | | | |
|--------------------------------------|--------------------------|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------|------|--------------|----------|
| External | Service | Evaluate effectiveness of providing comprehensive | | 0.15 | | \$26,000 |
| evaluator | Contract | pollinator education to Minnesotans | | | | |
| Indigenous | Service | Develop and review materials for educators covering | | 0.02 | | \$5,000 |
| pollinator | Contract | Indigenous pollinator knowledge | | | | |
| knowledge | | | | | | |
| consultant | | | | | | |
| Beekeeper | Service | Develop and review materials to educate beekeepers | | 0.01 | | \$1,000 |
| consultants | Contract | about native pollinators | | | | |
| | | | | | Sub | \$32,000 |
| | | | | | Total | |
| Equipment, Tools, and Supplies | | | | | | |
| | Tools and Supplies | Items to create Pollinator Education toolkits | Create outreach materials for Pollinator Ambassadors. Postage to send kits to volunteers. | | | \$2,550 |
| | Tools and Supplies | Bumble Bee Nest Quest supplies | Items such as lanyards and flagging to support nest searching. Postage to send materials to volunteers. | | | \$2,250 |
| | | | | | Sub Total | \$4,800 |
| Capital Expenditures | | | | | | |
| | | | | | Sub Total | - |
| Acquisitions and Stewardship | | | | | | |
| | | | | | Sub Total | - |
| Travel In Minnesota | | | | | | |
| | Miles/ Meals/ Lodging | 1,500 miles (at \$.70 per mile) plus lodging | Travel to Pollinator Ambassador in- person workshops | | | \$1,350 |
| | Miles/ Meals/ Lodging | 1,500 miles (at \$.70 per mile) plus lodging | Travel to Bumble Bee Nest Quest sites to perform surveys and lead workshops | | | \$1,350 |
| | | | | | Sub Total | \$2,700 |

| Travel Outside Minnesota | | | | | |
|--------------------------------|----------|----------------------------------------------------------------|---------------------------------------------------------------------------------------|----------------|-----------|
| | | | | Sub Total | - |
| Printing and Publication | | | | Total | |
| | Printing | Printing items to create Pollinator Educator Toolkits | To create outreach tools for educators | | \$3,000 |
| | Printing | Educational materials and handouts for bumblebee Nest Quest | To distribute educational materials and handouts to participants and land managers | | \$300 |
| | Printing | Educational materials and handouts for Bee Veterans programs | To distribute beekeeping and bumblebee educational materials to Bee Vets participants | | \$1,511 |
| | | | | Sub Total | \$4,811 |
| Other Expenses | | | | | |
| | | | | Sub Total | - |
| | | | | Grand Total | \$518,000 |

Classified Staff or Generally Ineligible Expenses

| Category/Name | Subcategory or | Description | Justification Ineligible Expense or Classified Staff Request |
|---------------|----------------|-------------|--------------------------------------------------------------|
| | Туре | | |

Non ENRTF Funds

| Category | Specific Source | Use | Status | Amount |
|-----------|-----------------|-----|-----------|--------|
| State | | | | |
| | | | State Sub | - |
| | | | Total | |
| Non-State | | | | |
| | | | Non State | - |
| | | | Sub Total | |
| | | | Funds | - |
| | | | Total | |

Total Project Cost: \$518,000

This amount accurately reflects total project cost?

Yes

Attachments

Required Attachments

Visual Component

File: f0a0ca5b-764.pdf

Alternate Text for Visual Component

Graphics depicting the impact of the three proposed activities, going from education to action to pollinator conservation. Pollinator Ambassadors: 40 Volunteers Engaging 30,000 Minnesotans. Pollinator Education for Beekeepers: Increased Awareness and Action for 120 Minnesota Veterans and 100 Beekeepers. Nest Quest: 100 Volunteers conducting 750 hours of data collection....

Supplemental Attachments

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

| Title | File |
|-----------------------------------------|-------------------------|
| Letter of Support from Heroes to Hives | <u>ae3dd012-a52.pdf</u> |
| Letter of Support from Dr. Marla Spivak | 7f56d811-b49.docx |
| Letter of Support from BWSR | 67035b17-c05.docx |
| UMN SPA approval letter | <u>4eac7d4c-06a.pdf</u> |

Administrative Use

Does your project include restoration or acquisition of land rights?

No

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 proposal:

Jessica Helgen, Katie Lee

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

Yes, I understand