



Environment and Natural Resources Trust Fund

2027 Request for Proposal

General Information

Proposal ID: 2027-088

Proposal Title: Minnesota Sustainable Foraging: Participant Research and Educational Outreach

Project Manager Information

Name: Ingrid Schneider

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

Office Telephone: (612) 624-2250

Email: ingridss@umn.edu

Project Basic Information

Project Summary: Develop a community-informed foraging education program that promotes safe and sustainable foraging practices and meets information gaps identified by the state task force with research on foraging participation.

ENRTF Funds Requested: \$773,000

Proposed Project Completion: June 30, 2030

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.

Minnesotans enjoy gathering edible and medicinal wild plants, flowers, berries, and mushrooms (i.e., foraging) and such activities represent important cultural practices and Traditional Ecological Knowledge. Foraging participation estimates are largely absent in Minnesota. A perception exists that interest and participation in foraging is increasing post-pandemic and during economic uncertainty. Increased foraging participation puts immediate pressure on public lands with potential risks to both the resilience of foraged resources and public health. The state's sustainable foraging task force convened scientific experts and keepers of traditional ecological knowledge who identified two critical gaps: 1) a lack of data on Minnesotans' non-commercial foraging participation, locations, and knowledge of best practices and 2) absence of educational curricula.

This project combines new data on foraging participation and practices with community-insights to create and test a sustainable foraging educational program and certificate which will protect both natural resources and human health. The goal is to create sustainable foraging practices and disseminate needed information about how to safely identify, prepare, and consume or use foraged materials.

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 integrate community-engaged research and UMN Extension education to a) collect baseline information about Minnesotans' foraging behavior, knowledge, and perceptions of foraging via a representative survey of Minnesota residents, focus groups and interviews, and b) launch a sustainable foraging program and certificate for non-commercial foragers through the University of Minnesota Extension. Guided by an expert advisory committee (including TEK keepers), this program will foster a new generation of stewards equipped to protect natural resources through honorable harvest and create norms around natural resources stewardship.

An advisory committee composed of a range of representatives will inform survey, focus group and interview research activities by co-creating important questions of interest, identifying knowledge that could support management, reviewing materials and sharing with their networks. Similarly, the group will inform curricula development for a certificate program through the University of Minnesota Extension regarding safe and sustainable foraging.

We will survey a representative sample of Minnesotans to understand their foraging participation, knowledge and interests. Focus groups or interviews will provide additional data among groups of interest for the educational certificate. The data will be used to inform content for the sustainable foraging educational program and certificate.

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?

Deliverables include objective baseline data to inform managerial decisions and a research-based educational certificate. Key outcomes include a 1) measurable increase in sustainable harvesting knowledge, 2) increased resource protection and 3) increased safe foraging and food preparation knowledge. Secondary stewardship outcomes may include increased participant self-efficacy as well as greater knowledge about how to safely prepare and consume plants and mushrooms as well as stronger norms regarding the stewardship of foraged resources. Certificate impact will be demonstrated in numbers of participants in years to follow.

Activities and Milestones

Activity 1: Educational inventory, development and implementation

Activity Budget: \$375,552

Activity Description:

We will develop a certificate program in consultation with the community advisory committee, reviewing the Sustainable Foraging Taskforce recommendations following the results of the survey, focus groups and interviews. Topics include but are not limited to administrative rules, permitting and policies; tribal sovereignty, treaty rights and sacred medicines, honorable harvest, regenerative harvesting practices and Traditional Ecological Knowledge - TEK; personal safety and invasive species identification. Enrollees in the program will learn skills in species identification, techniques for preparation and storage of foraged goods for consumption, and best practices to minimize impacts to natural resources, among others topics as appropriate. The University of Minnesota Extension will manage this.

Deliverables from this effort include the certificate program itself with its impact revealed in annual participation and intended and self-reported behavior change. A thorough pilot program and detailed participant evaluations will identify knowledge gaps, areas of greatest interest and concern as well as participant intended behavior change. Intangible deliverables may include higher self-efficacy among participants; stronger stewardship norms regarding foraged resources; greater knowledge about tribal sovereignty, treaty rights and TEK; increased invasive species reporting; and improved safety while preparing and consuming plants and mushrooms.

Activity Milestones:

Description	Approximate Completion Date
Audit of available foraging courses/content and begin developing curriculum	June 30, 2028
Pilot curriculum, offer course in fall 2028, improve and offer second course in spring 2029.	June 30, 2029
Offer improved course in fall of 2029 and finalized course curriculum in spring 2030.	June 30, 2030

Activity 2: Community informed foraging participation research

Activity Budget: \$397,448

Activity Description:

We will obtain baseline foraging participation information and inform educational certificate development. Multiple methods will be performed to fill the foraging behavior knowledge gap. First, we will conduct a representative survey of Minnesotans. Questionnaire topics will be informed by the advisory committee, past research, and include foraging participation, behaviors and knowledge. Households will be randomly selected and contacted via postal mail, using multiple contacts to maximize response rates, and weight estimates to known census demographics to ensure generalizability to the state population. We will oversample to acquire a large enough sample of foragers to evaluate. Quantitative data will provide insight on actual participation, behaviors and knowledge levels to inform certificate curricula materials and management questions. Second, based on the survey results and advisory committee insight, we will recruit participants for focus groups and interviews through the most appropriate method based on the community (i.e. community leaders or organizations). Qualitative results will help refine the educational material development and enhance understanding of sustainable foraging behaviors. Deliverables include technical reports, public facing summaries, presentations to key management agencies (e.g., DNR, USFWS, USFS, Tribal Land and Environment Stewards) and civil interest groups, peer-reviewed publications, and especially recommendations to inform curriculum design.

Activity Milestones:

Description	Approximate Completion Date
Convene initial partners, expand contacts and convene full advisory group	September 30, 2027
Design, implement and analyze questionnaire, informing initial educational certificate pilot	May 31, 2028
Design, implement and analyze focus groups and interviews, informing certificate refinement	October 31, 2028
Compile final report, presentations and publication drafts	June 30, 2030

Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Angela Gupta	University of Minnesota Extension	Educator	Yes
Adam	Landon	Collaborator	No

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.

Dissemination will include use of typical technical reports, information summaries for partners, in-person and online presentations to key management agencies and interest groups, as well as peer-reviewed publications. We will work with our advisory committee and follow best communication practices to disperse results and educational outcomes. For example, we can provide sessions to the Department of Natural Resources Minnesota Outdoor Skills and Stewardship (MOSS) webinar series and the 'Friday with a Forester' series. In addition, we will create and distribute the foraging curriculum with both in-person and online elements. As required, we 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 and outreach.

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?

This baseline data, reports and presentations will be shared with project partners and others. The research-based and community informed program will be offered through Extension. To ensure long-term viability post grant, we will use a fee-based model for workshops and materials, requesting permission to generate and reinvest program revenue to maintain and update the certificate program, ensuring it remains a permanent and timely resource for Minnesota foragers.

Other ENRTF Appropriations Awarded in the Last Six Years

Name	Appropriation	Amount Awarded
Aquatic Invasive Species: From Problems to Real-World Solutions	M.L. 2025, First Special Session, Chp. 1, Art. 2, Sec. 2, Subd. 06a	\$5,771,000

Project Manager and Organization Qualifications

Project Manager Name: Ingrid Schneider

Job Title: Professor

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

Professor Schneider is a faculty member in the Forest Resources and Environmental Science, Policy & Planning programs at the University of Minnesota's Department of Forest Resources. Schneider has more than 25 years of successful project management and principal investigator experience working across disciplines and geographic boundaries. Schneider's expertise is in outdoor recreation behavior and natural resource management and she works with a variety

of local, state and national partners to optimize experiences while protecting natural resources. Schneider will hire and supervise a postdoctoral researcher who will be primarily responsible for daily project management, and reporting. Schneider has experience supervising multiple projects across local, state and federal funding streams as well as project managers and graduate students. Schneider also directed the University's Tourism Center for more than a decade.

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

Organization Description:

Within the University of Minnesota, the College of Food, Agricultural, and Natural Resource Sciences (CFANS) hosts twelve academic departments and ten research and outreach centers, the Minnesota Landscape Arboretum, the Bell Museum, and several interdisciplinary centers. Within CFANS, the Department of Forest Resources advances the science and management of forests and related natural resources by developing solutions to important problems affecting these resources; training the next generation of scholars and practitioners; and informing the broad public on the importance of forests and natural resources and how they enrich our quality of life. We are cooperating with Extension, which fulfills the University of Minnesota mission by bringing Minnesotans together to build a better future through science-based knowledge, expertise and training. This project is well aligned with Extension's mission of "Making a difference by connecting community needs and University resources to address critical issues in Minnesota."

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
Personnel								
Ingrid Schneider/Professor		Project manager and coordinator			36.6%	0.33		\$85,345
Angela Gupta/Co-I		Co investigator with primary responsibility for certificate			36.6%	0.09		\$13,878
Amy Johnston/Extension		Educator supporting educational certificate and materials			36.6%	0.09		\$9,879
Educator/Extension		Educator with significant responsibility for certificate and coordination			366%	3		\$284,083
Post doc/Research specialist		Support research development and implementation			26.1%	250		\$200,929
Undergraduate student		Support research data collection			0%	0.03		\$8,240
							Sub Total	\$602,354
Contracts and Services								
TBD	Service Contract	Creating sample for mail questionnaire to representative sample of Minnesotan's				0.1		\$15,000
TBD	Service Contract	Recruiting focus group participants for project				0.01		\$5,000
TBD	Service Contract	Translation of certificate materials for education purposes				0.5		\$15,000
TBD	Service Contract	non governmental organization advisory committee participants compensation for meetings, work between meetings at volunteer rate				0.3		\$14,400
TBD	Service Contract	Teaching special sections of certificate				0.4		\$5,600
							Sub Total	\$55,000
Equipment, Tools, and Supplies								
	Tools and Supplies	Foraging book (100)	Provide materials for pilot participants in program					\$2,500
	Tools and Supplies	Patches and vests	Identification for certificate and instructors					\$6,500

	Equipment	Educational materials	Inform certificate development					\$1,186
	Equipment	Boot brushes	Illustrating and outfitting initial participants for invasive species removal with boot brush (4\$/brush, 100 people)					\$400
							Sub Total	\$10,586
Capital Equipment								
							Sub Total	-
Acquisitions and Stewardship								
							Sub Total	-
Travel In Minnesota								
	Miles/ Meals/ Lodging	Local mileage for focus groups in greater and metro MN	Acquire data from focus group participants					\$4,000
	Conference Registration Miles/ Meals/ Lodging	1 trip, 3 nights, 4 days, 2 people with registration 300/person; standard MN rates	Report on initial findings from research from year 1					\$2,000
	Conference Registration Miles/ Meals/ Lodging	3 different trips, 450 miles RT, 3 people; registraton \$550 = standard lodging and per diem for 3 nights, 4 days (\$1500/person/trip)	Share results from research and certificate evolution across diverse groups					\$4,500
	Conference Registration Miles/ Meals/ Lodging	2 people, 1 trip each, 450, \$1500 each per standard MN rates	Research for sharing across greater Mn of certificate development					\$3,000
	Miles/ Meals/ Lodging	3 educators, 3 workshops, 2 with lodging in greater MN	Conduct educational workshops					\$4,440
	Miles/ Meals/ Lodging	\$50.participant)	Refreshments for certificate workshoip participants					\$5,000
							Sub Total	\$22,940
Travel Outside Minnesota								
							Sub Total	-
Printing and Publication								

	Printing	Printing	questionnaire, envelopes and letters for mail questionnaires to collect data; includes mailing					\$70,000
	Printing	Educational materials	Printing materials for certificate					\$4,000
							Sub Total	\$74,000
Other Expenses								
		Room rental fees	Fees for room rental for focus groups					\$480
		Research payments	Focus group participant research payment, \$75/person (12 people, 6 groups)					\$5,400
		Focus group refreshments	Provide food as part of incentive for participating in focus group; standard practice (\$240 for 6 groups)					\$1,440
		Room rental 4	Rent rooms for educational offerings in greater MN					\$800
							Sub Total	\$8,120
							Grand Total	\$773,000

Classified Staff or Generally Ineligible Expenses

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

Non ENRTF Funds

Category	Specific Source	Use	Status	Amount
State				
In-Kind	DNR state staff	Support research, use in certificate and dissemination	Secured	\$20,421
			State Sub Total	\$20,421
Non-State				
			Non State Sub Total	-
			Funds Total	\$20,421

Total Project Cost: \$793,421

This amount accurately reflects total project cost?

Yes

Attachments

Required Attachments

Visual Component

File: [b11f9ff6-bd4.pdf](#)

Alternate Text for Visual Component

Process of data collection and integration of information to certificate with positive outcomes listed...

Supplemental Attachments

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

Title	File
Organizational support for Schneider foraging	90661b85-1ce.pdf
MnDNR Support letter Schneider Foraging	6ca61883-efc.pdf
MN Wildlife Federation Support letter Schneider foraging	061ab40e-863.pdf
Mn Mycological Society Support letter Schneider foraging	ef9968a7-0ab.pdf
Greater Mn Parks Trails Support letter Schneider foraging	257d454b-1e7.pdf

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?

Yes

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

Yes

Do you wish to request reinvestment of any revenues into your project instead of returning revenue to the ENRTF? If so, describe here (1) the source and estimated amounts of any revenue and (2) how you propose to use those revenues:

Yes, Yes, we understand the revenue-return and sharing requirements in M.S. 116P.10. We request the commission include in its legislative bill a recommendation to relinquish the income to support reinvestment of the program income in the project for ongoing education. During the grant period while we pilot and develop and improve educational content, participants will not be charged a fee so we will not generate revenue. However, to ensure the long-term viability of an optional educational certificate program, Extension asks for explicit permission to generate and reinvest program revenue (workshop and material fees) for post-grant educational offerings. Furthermore, if there are educational materials, like books, webinars, or video resources generated, we ask permission to charge if needed and again reinvest any revenue into foraging educational programming. Specifically, costs for Extension programming depending on type, in person or online, synchronous or asynchronous, and costs commonly including facility rental, food, instructor fees, travel and total length of education. Because we intend to engage the Advisory Committee to

develop both the educational design and educational type, program fees per participant, total participants numbers and overall community interest will be determined, therefore, total revenue estimates are challenging.

Does your project include original, hypothesis-driven research?

No

Does the organization have a fiscal agent for this project?

Yes, Sponsored Projects Administration

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:

Angela Gupta,UMN Extension; Adam Landon, MnDNR;

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