

**Environment and Natural Resources Trust Fund
2020 Request for Proposals (RFP)**

Project Title:

ENRTF ID: 138-CH

Engaging Minnesotans with Phenology: Radio, Podcasts, Citizen Science

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

Sub-Category: C. Environmental Education

Total Project Budget: \$ 198,478

Proposed Project Time Period for the Funding Requested: June 30, 2022 (2 yrs)

Summary:

This project builds next generation conservationists using phenology, radio broadcasts, podcasts, and an online, interactive map interface to inspire teachers, students and the public to get outside and experience nature.

Name: Maggie Montgomery

Sponsoring Organization: Northern Community Radio, Inc.

Job Title: _____

Department: _____

Address: 260 NE 2nd St

Grand Rapids MN 55744

Telephone Number: (218) 326-1234

Email mmontgomery@kaxe.org

Web Address: www.kaxe.org

Location:

Region: Statewide

County Name: Statewide

City / Township:

Alternate Text for Visual:

Goal statement, picture of KAXE Phenology Show, picture of school kid on radio, map illustrating interactive tool for data exploration and data entry, image and quote from David Scoggins on winning 4-H phenology project

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



PROJECT TITLE: Engaging Minnesotans with phenology: radio, podcasts, citizen science

I. PROJECT STATEMENT

“Alexa, play the KAXE phenology school reports”

The goal of this environmental education project is to build the next generation of conservationists in Minnesota by engaging youth and adults in science and outdoor learning through radio programming, podcasts, digital media, citizen science and schoolyard exploration. We use phenology, the rhythmic biological events of nature as they relate to climate, to draw people outdoors to observe and connect.

For more than thirty years, John Latimer has led the Phenology Show at Northern Community Radio, KAXE/KBXE, based in Grand Rapids, MN, inspiring 1000s of people in to pay attention to what’s happening in nature in their backyards and woodlots and share it with others. Every Tuesday morning, John gathers his phenology data and reports his findings in the weekly Phenology Report. Every week in Phenology Talkback we hear from Minnesota school kids and regular listeners as they call or email us with their nature observations. Bobcat tracks, downy woodpeckers, a snowdrift covering a classroom window (which a hero-custodian cleared away), a close study of layers of snow and much more are included in these phenology reports.

Phenology is an important tool for creating personal connection to places. We know that “place connection” is a key component of pro-environmental and conservation behavior. Our project builds on John’s legacy by developing new programs that strengthen place connection and inspire the next generation of conservationists in Minnesota.

At a time when outdoor engagement is dropping (e.g., statewide reductions in hunting and fishing), our project uses technology to draw people outdoors. We will do this by:

- developing new radio programming and podcasts that inspire listeners to engage with the outdoors and share their experiences
- expanding current partnership programs between KAXE and K-12 schools by offering workshops statewide that train teachers and 4-H leaders in existing phenology curricula, developing radio reports from schools, and supporting participating schools with follow-ups
- creating an online map based interface that will allow anyone – adult radio listeners, teachers and kids in school programs – to compare what they are seeing with others in Minnesota and with historical data compiled by the Minnesota Phenology Network.

In summary, this project will result in a set of tools equally accessible to the public, teachers and school kids that deliver science content and inspire people to get outdoors and build community around the environment through radio, podcasts, web-based data collection and nature exploration.

II. PROJECT ACTIVITIES AND OUTCOMES

Activity 1: Deliver engaging environmental programming to Northern Minnesota through radio and podcasts

Description: We will expand our current portfolio by developing three new programs: monthly interviews with environmental scientists, podcasts related to the seasons of the year, and monthly radio segments about statewide phenology that will be made available to other public radio stations in Minnesota. These public radio broadcasts and podcasts will educate and engage people in northern MN—and elsewhere around the state—about environmental science and its relationship to observable nature.

ENRTF BUDGET: \$70,456



Outcome	Completion Date
<i>1. 24 radio segments that present interviews with scientists that engages up to 18,000 listeners per week across northern MN</i>	<i>June 2022</i>
<i>2. 8 podcasts created and available online (spring, summer, fall, winter each year)</i>	<i>June 2022</i>
<i>3. 24 short radio segments (each up to 5 minutes) of statewide phenology "happenings" created and distributed to other noncommercial educational radio stations in Minnesota</i>	<i>June 2022</i>

Activity 2: Create a statewide program for school kids combining phenology observation with radio broadcasting

Description: We will expand existing school partnerships in environmental education statewide and also work with county 4-H programs. With UMN extension support, we will offer teachers and 4-H leaders training in our phenology and radio curriculum once per season for two years (8 workshops) rotating the location around the state (NE, NW, SE, SW). The curriculum involves basic phenology observations combined with developing short school phenology reports for radio broadcast. We will offer a helpline, pair teachers and 4-H leaders with a Master Naturalist and provide 1-1 follow-up meetings to ensure strong support of classroom implementation. Further, we will develop easy data input for school reports that supports the map of observations in Activity 3.

ENRTF BUDGET: \$40,251

Outcome	Completion Date
<i>1. 8 workshops train 80 teachers who engage 2400 students (4 per year)</i>	<i>June 2022</i>
<i>2. 360 radio segments created by kids in school program</i>	<i>June 2022</i>

Activity 3: Build interactive digital map of statewide phenology data and regional phenology calendars

Description: We will create an online map interface for comparing current observations to others and to the past. Users will click on their location and search for earliest, latest and average time of a phenological event such as lilac blooming or sandhill crane return. In addition, they can view what others in the state are seeing. This interactive web application will allow people to place their personal observations in a broader context and build community and awareness. In addition, we'll create regional phenology calendars available online and in print form that serve as guides to what to look for each month as well as personal journals.

ENRTF BUDGET: \$87,771

Outcome	Completion Date
<i>1. Interactive digital map of phenology data</i>	<i>June 2021</i>
<i>2. Web tool to compare current observations to past and to others in the state</i>	<i>June 2021</i>
<i>3. Online and print regional phenology calendars – 5000 print copies distributed</i>	<i>December 2021</i>

III. PROJECT PARTNERS AND COLLABORATORS:

Receiving funding: Stephan Carlson, UMN, Dept. of Forest Resources and Extension; DASH, Len Kne; Ampers; UMN Research Associate and Graduate Student; This is Folly, graphic design company. **Not receiving funding:** Rebecca Montgomery, UMN, Dept. of Forest Resources; Minnesota Phenology Network.

IV. LONG-TERM IMPLEMENTATION AND FUNDING: Web map will be hosted by University of Minnesota. Radio broadcasts and podcasts will be available through KAXE website.

Attachment A: Project Budget Spreadsheet
Environment and Natural Resources Trust Fund
M.L. 2020 Budget Spreadsheet



Legal Citation:

Project Manager: Maggie Montgomery

Project Title: Engaging Minnesotans with phenology: radio, podcasts, citizen science

Organization: Northern Community Radio, Inc.

Project Budget: \$198,478

Project Length and Completion Date: Two years; June 30, 2021

Today's Date: April 9, 2019

ENVIRONMENT AND NATURAL RESOURCES TRUST FUND BUDGET		Budget	Amount Spent	Balance
BUDGET ITEM				
Personnel (Wages and Benefits)		\$ 62,256	\$ -	
Producer, 18h/week @ \$18/h +\$7/h fringe; two years; \$46,800				
Producer supervisor, 2h/week @ \$22/h +\$10/h fringe; two years; \$6,656				
Grant admistration, 5h/month @ \$25/h +\$10/h fringe; two years; \$4,200				
John Latimer, 8 teacher trainings @ \$200/session + 30 follow-ups @ \$100/session; \$4,600				
Professional/Technical/Service Contracts				
Contract producer 24 statewide phenology episodes @ 650/episode		\$ 15,600		
Subcontract with University of Minnesota: phenology data interpretation, 0.25 FTE (1 year @ base salary 49,000\$ + fringe 36%=\$16,660); Stephan Carlson, UMN Extension, 0.10 FTE (2 year @ base salary \$82,534 + fringe 36% =\$22,449); Digital Arts Science & Humanities mapping, Len Kne, 0.05 FTE (1 year @ base salary 86,107 + 36% fringe=\$11,711); Graduate RA, 0.5 FTE (1 year, \$48,000); travel per UMN Policy for 1 person for 8 training sessions, mileage @ 500 miles/session @ 0.58/mile = \$2,320; lodging @ \$94/night = \$752, per diem @ 41.25 per day (first/last day rates) = \$330.		\$ 102,222		
Modified graphic design for calendars based on existing calendar created by This is Folly		\$ 4,000		
		\$ -	\$ -	\$ -
Equipment/Tools/Supplies				
		\$ -	\$ -	\$ -
Printing				
Calendar printing (4000 * \$1.50/calendar)		\$ 6,000	\$ -	
Travel expenses in Minnesota		\$ 8,400		
8 training sessions, 500 miles/session, 1 persons @ 0.545/mile = \$2,180				
30 follow up sessions, 250 miles/session, 1 person @ 0.545/mile = \$4,088				
Per comminssioner's plan for lodging, 8 sessions * 1 persons * 94\$/night * 8 = \$752				
Per Commissioner's Plan for food, 8 sessions * 1 persons * \$46/day * 30 = \$1,380				
		\$ -	\$ -	\$ -
Other				
		\$ -	\$ -	\$ -
COLUMN TOTAL		\$ 198,478	\$ -	\$ -
SOURCE AND USE OF OTHER FUNDS CONTRIBUTED TO THE PROJECT				
	Status (secured or pending)	Budget	Spent	Balance
Non-State:		\$ -	\$ -	\$ -
State:		\$ -	\$ -	\$ -
In kind:UMN unrecovered ICR @ 52% (\$103,203); R. Montgomery, in-kind salary, 0.04 FTE for two years (\$11,000)		\$ 114,203	\$ -	\$ 114,203
Other ENRTF APPROPRIATIONS AWARDED IN THE LAST SIX YEARS		Budget	Spent	Balance
Project collaborator, R. Montgomery, M.L. 2014, Chp. 226, Sec. 2, Subd. 05e, Assessing species vulnerability to climate change using phenology		\$ 175,000	\$ 175,000	\$ -

"Alexa, play the KAXE phenology school reports"

Phenology Report: April 2, 2019

By JOHN LATIMER • APR 5, 2019



GARY PAYNE, KAXE-KBXE SEASON WATCH FACEBOOK PAGE

SPRING HAS SPRUNG :

Activity 1: Develop new **radio programs** and **podcasts** that inspire people to get outside and observe nature.

Activity 2: Expand schoolyard program statewide and get **kids doing nature reports on the radio!**

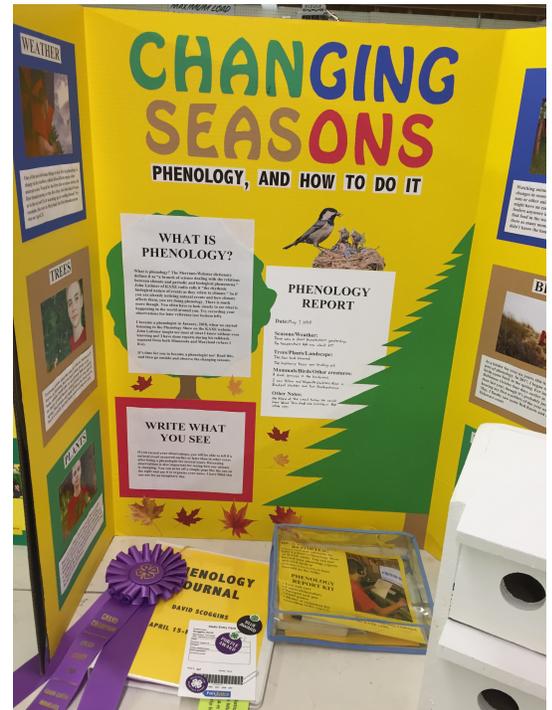


Photo: Norma Evans, CCO

Activity 3: **View** historical data and **add** observations through an easy to use **map interface**

Bird Observations

Submitted: American Bittern	0
Submitted: Barn Owl	3
Submitted: Bewick's Wren	1
Submitted: Black Tern	4



Key Outcome: Build the next generation of conservationists like David Scoggins, 4-H Grand Champion at 2018 Itasca Country Fair. He was inspired

by the KAXE Phenology Show. He says phenology "gets people outdoors, it helps them pay attention and is fun to learn."

Project Manager Qualifications and Organization Description
Project Manager: Maggie Montgomery, General Manager
Northern Community Radio, 260 NE 2nd St, Grand Rapids MN 55744

Maggie Montgomery has 35 years' experience in public broadcasting. She has been General Manager of Northern Community Radio (NCR) since 1995. Northern Community Radio is an independent public educational broadcast organization that "builds community in northern Minnesota" (mission statement). The organization operates two public radio stations: 91.7 KAXE in Grand Rapids and 90.5 KBXE in Bemidji. Its website is www.kaxe.org. KAXE was the original public radio station for much of northern Minnesota and is the state's only full member of National Public Radio outside of MPR. KAXE and KBXE broadcast mostly contemporary music, news, and entertainment with a full-time staff of 9 and the contributions of more than 100 community volunteers. The organization is highly involved in its communities of service.

Maggie has been named Ampers (Association of MN Public Educational Broadcasters) Broadcaster of the Year, and was honored with NCR's first award for on-air creativity and artistry. Northwest Minnesota Foundation Women's Fund presented her with its annual Outstanding Community Builder award in 2013. She has served as President of the Ampers board, and as a board member for the National Federation of Community Broadcasters (NFCB). Invited speaker and workshop leader at state and national conferences, including NFCB conferences and the Public Radio Engineering Conference.

Her work at Northern Community Radio includes staff leadership, budgeting, grant writing and reporting, regulatory compliance, supervision, and working closely with the organization's board of directors. She is also host and producer for *Morning Edition* and the *Wednesday Morning Show* each week, and produces a weekly segment about local food.