



JANE BRECKINRIDGE

Mobile App Working Group

- **Role:** Director, Euchee Butterfly Farm & Tribal Alliance for Pollinators
- **Pronouns:** She/Her
- **Goals:**
 - Use phenology to address changes in pollinator plants and pollinators.
 - Improve accessibility and usability of Nature's Notebook.
- **Interests:**
 - Restoration plantings for pollinator support on the Muscogee Nation.
 - Leveraging iNaturalist for community engagement.

“It is important to pay attention to phenology to stay ahead of the changes that are coming to pollinator plants and pollinators.”



DAN DALAN

Mobile App Working Group

- **Role:** Allergist/ Immunologist
- **Pronouns:** He/Him
- **Goals:**
 - Explore the intersection of phenology, weather events, and allergies.
 - Develop products and tools to aid allergy sufferers
- **Interests:**
 - Disproportionate allergy impacts on specific populations.
 - Botany and differences between insect-dispersed and wind dispersed pollen

Dan is interested in knowing about how rain, wildfires, and phenology impact allergies and how allergies impact people and their quality of life.



MARIANNE LANCASTER

Mobile App Working Group

- **Role:** k-12 Educator
- **Pronouns:** She/Her
- **Goals:**
 - Teaching high school students about using *Nature's Notebook* to learn about phenology.
 - Improving the app for informal education.
- **Interests:**
 - Taught biology for 30 years, now retired
 - Engaging high school students in data collection at their local nature reserves.

“Engaging teenagers in citizen science is rewarding”



DARIUS LEDBETTER

Mobile App Working Group

- **Role:** Graduate Student, North Carolina State University
- **Pronouns:** He/Him
- **Goals:**
 - Study phenology's links to forestry and dendrology.
 - Promote diversity in ecological studies.
- **Interests:**
 - Using iNaturalist to explore habitat and phenology processes.

Darius is particularly interested in links to forestry, habitat, and dendrology. He is a big user of iNaturalist!



REBECCA EDLER

Mobile App Working Group

- **Role:** Sustainability Coordinator, College of Menominee Nation
- **Pronouns:** She/Her
- **Goals:**
 - Raise awareness of phenology's importance among students and community.
 - Highlight cultural connections to plants and forest ecosystems.
- **Interests:**
 - Engaging diverse groups in phenology education.

“Bringing awareness to students, faculty, staff, and community members about the importance of phenology is at the forefront.”



FELIX JAVIER “JAVI” BERRÍOS ORTEGA

Mobile App Working Group

- **Role:** PhD Student, University of Connecticut
- **Pronouns:** He/Him
- **Goals:**
 - Promote community science and ecological awareness.
 - Make science accessible through technology.
- **Interests:**
 - Engaging communities in tracking climate impacts through phenology.
 - Bridging scientific research and public understanding.

“What stands out about phenology is its potential to engage people directly with nature and with pressing environmental issues.”



YEISHMARY M. SOTO-MUNIZ

Mobile App Working Group

- **Role:** Undergraduate Network for Increasing Diversity of Ecologists
- **Pronouns:** She/Her
- **Goals:**
 - Highlight the cultural and interdisciplinary applications of phenology.
 - Connect her background to environmental science and public awareness.
- **Interests:**
 - Linking phenology to cultural identities and underrepresented groups.

“My connection to phenology is rooted in my cultural background and experiences, reflecting deep ties to nature”



SARAH SMITH

Mobile App Working Group

- **Role:** Social Science Analyst, US Forest Service
- **Pronouns:** She/Her
- **Goals:**
 - Use phenology apps to connect the public to natural resources.
 - Expand educational outreach within the Forest Service.
- **Interests:**
 - Phenology trails as tools to foster public land appreciation.
 - Recreation management and environmental education.

“I am most interested in the fact that phenology trail apps and resources can get people into places they may not otherwise go!”



TANISHA M. WILLIAMS

Mobile App Working Group

- **Role:** Assistant Professor, University of Georgia
- **Pronouns:** She/Her
- **Goals:**
 - Integrate Nature’s Notebook and phenology into her curriculum.
 - Increase accessibility of phenology tools for diverse audiences.
- **Interests:**
 - Plant biology and phenological research.
 - Engaging students and communities in environmental awareness.

“I am excited to hear about best practices, incorporating Nature's Notebook into my courses”



JEFF SWITZER

Project Team

- **Role:** Systems Analyst, USA-NPN
- **Pronouns:** He/Him
- **Goals:**
 - Support the IT infrastructure for Nature's Notebook.
 - Translate user vision into improved experiences.
- **Interests:**
 - Technology, nature, and community intersections.
 - Observing phenological changes during outdoor activities.

“Phenology awareness has really opened my eyes to things I would have earlier passed by while gardening, hiking, and exploring outdoors”



ERIN POSTHUMUS

Project Team

- **Role:** Partnerships and Projects Manager, USA-NPN
- **Pronouns:** She/Her
- **Goals:**
 - Foster partnerships with federal and conservation organizations.
 - Project management, ensure that all the details are accounted for.
- **Interests:**
 - Support observers and Local Phenology Programs.

“ I am fascinated by our summer monsoons here in Southern Arizona and the many changes that result in the plants and animals of the Sonoran Desert.”



NATHAN ACOSTA

Project Team

- **Role:** Web Developer, USA-NPN
- **Pronouns:** He/Him
- **Goals:**
 - Ensure USA-NPN web platforms meet user needs.
 - Provide smooth and efficient IT infrastructure.
- **Interests:**
 - Climate research, public health applications of phenology.

“I am passionate about educating people about phenology and nature.”



ELLEN DENNY

Project Team

- **Role:** Monitoring Design and Data Coordinator, USA-NPN
- **Pronouns:** She/Her
- **Goals:**
 - Simplify phenology monitoring protocols while ensuring data quality.
 - Enhance the usability of Nature’s Notebook.
- **Interests:**
 - Marine and forest ecologist, worked in the woods, collecting data on plants and soil which led to discovery of phenology!

“Following the phenology in my yard keeps me grounded and in tune with the natural world, especially on those days I feel overwhelmed.”



J.D. GIBBS

Project Team

- **Role:** Application Developer, UArizona
- **Pronouns:** He/Him
- **Goals:**
 - Lead the development of the new Nature's Notebook Native and Web App
 - Create engaging mobile experiences for phenology.
 - Simplify species identification for users.
- **Interests:**
 - Learning about phenology!

“You can consider me a phenology newbie - but I’m really enjoying learning about it!”



KIM DALY

Project Team

- **Role:** Designer, Communications and Cyber Technologies, UArizona
- **Pronouns:** She/Her
- **Goals:**
 - Visualize life sciences concepts effectively by leveraging technology.
 - Use Nature's Notebook to understand climate impacts.
- **Interests:**
 - Work on projects related to the life sciences
 - Observing patterns in nature through an artistic lens.

“I am curious to learn more about phenology and how NN can provide insight on nature and how climate change is affecting our natural world”



ANN SHIVERS-MCNAIR

Project Team

- **Role:** UX Researcher, UArizona
- **Pronouns:** She/Her
- **Goals:**
 - Support community science for climate justice.
 - Enhance user-centered design in phenology projects.
- **Interests:**
 - Bridging science and community understanding of climate impacts.

Phenology is important to me because I care about climate justice—and I also care about the USA-NPN’s approach to phenology, specifically, because I’m a strong believer in community science.”



ERIN GRADY

Project Team

- **Role:** Engagement Coordinator, USA-NPN
- **Pronouns:** She/Her
- **Goals:**
 - Develop a standardized datastore for global phenology data
 - Connect phenology with community engagement on climate issues.
- **Interests:**
 - Using phenology to foster conversations about climate change.

“I view phenology as an opportunity to find common ground with non-scientists and start the conversation about climate change.”



THERESA CRIMMINS

Project Team

- **Role:** Director, USA-NPN
- **Pronouns:** She/Her
- **Goals:**
 - Collaborate with data collectors and users.
 - Promote understanding of phenology's impact on everyday life.
- **Interests:**
 - Engaging people of all ages in observing seasonal changes.

"I am continually surprised by how complex the subject of phenology actually is and how much it intersects with our everyday lives"



ERIN ZYLSTRA

Project Team

- **Role:** Research Scientist, USA-NPN
- **Pronouns:** She/Her
- **Goals:**
 - Improve phenology data collection methods for high-quality information
 - Investigate climate impacts on plant species and communities.
- **Interests:**
 - Spending time on the field, applying phenology to wildlife and plant research.

"Most research I've done has been focused on wildlife populations. I am excited to be thinking more about phenology and how climate change is impacting plant species and communities."



ROB GULRANICK

Project Team

- **Role:** Curator of Biodiversity Informatics, Florida Museum of Natural History, University of Florida
- **Pronouns:** He/Him
- **Goals:**
 - Understand species' responses to global change and disturbances.
 - Advance phenology data integration with global biodiversity resources.
 - Support the NPN through collaborative projects and funding.
- **Interests:**
 - Developing phenology knowledge resources for community use.

Rob's work with USA-NPN is focused on integration with other global biodiversity resources.



CAROL ABEL

Past MAWG Member

Role: Arlington Regional Master Naturalist

Pronouns: She/Her

Goals:

Support monitoring projects through Nature's Notebook.
Transition from paper data collection to digital platforms.

Interests:

Observing climate-change impacts on trees and plants as a non-science person.
Habitat restoration and environmental stewardship.

Carol and the ARMN observers are interested in changes happening due to climate change.



KIM QUILLIN

Past MAWG Member

Role: Professor, Salisbury University

Pronouns: She/Her

Goals:

Incorporate phenology into biology courses.
Engage students in research on local climate and urban heat impacts.

Interests:

Using Nature's Notebook to connect coursework with real-world climate studies.

"What is most useful to me about phenology is that it is a tractable tool to engage students in research connecting human impacts like climate change and urban heat islands to their own community"



CHI NGUYEN

Past Project Team Member

- **Role:** Graduate Assistant, USA-NPN
- **Pronouns:** She/Her
- **Goals:**
 - Understand user motivations for joining Nature's Notebook.
 - Enhance support for volunteers and program leaders.
- **Interests:**
 - Leveraging phenology for climate and community connections.

“It’s really fascinating how phenology data can be used in the study of climate change, emphasizing the fact that everything is connected!”



RACHEL GOLAND

Past Project Team Member

Role: Contractor, USA-NPN

Pronouns: She/Her

Goals:

Support US Forest Service phenology needs within the project.

Integrate phenology data into ecological project designs.

Interests:

Temporal ecology and citizen science in natural landscapes.

“We so often think about ecology spatially and I love that phenology incorporates a temporal dimension into how we understand and communicate about the natural world.”