

Phenology Network Re-Vision
March 17, 2014

Hello OSU Phenology Network cooperators! First of all, I want to thank each of you for your interest and continued dedication to our phenology research over the last ten years. It's because of the support and enthusiasm from our cooperators that I've decided to redouble efforts on the OSU Network. I wanted to give everyone an update on the re-vision. Please take time to read through this entire document.

Our cooperators spoke, and we listened! You said our data collection transition to the National Phenology Network was riddled with frustration: lack of relevant plants, a difficult interface and confusing phenophases. My wish was to get our data out to the wider scientific community and to simplify our data collection mechanism. Clearly, it didn't work the way I had hoped.

I have spent the last nine months reworking OSU Phenology Garden Network with the goals of maintaining our Ohio network, continuing to support our cooperators, and expanding to research pollinator plants and pollinator phenology. I have ruminated over plant additions, and discussed the proposed changes with faculty here at OSU, as well as bee scientists with the ARS Bee Lab in Utah. I think you'll be pleased with the revisions. Here's a snapshot of our new emphasis:

- Our data collection portal will return to OARDC, once again under the capable guidance of Dave Lohnes. Features will again include a simple log-in, simple interface, accessible data and a system nimble to changing needs and suggestions, just like we had before (only better, Dave says!). The website will be ready for business on **April 1st** at our old home:
<http://phenology.osu.edu>
- Data collection in 2014 will consist of "span of bloom" observations: **first bloom** and **end of flowering** data for all existing Network plants – perennials and woodies. We will no longer collect full bloom data. I don't want us to collect data for the sake of data collection, and we have sufficient full bloom data at this point.
- For gardens interested in expansion into pollinator phenology, I will provide (at no cost) 11 native Ohio plants (3" pots) for your garden to plant this spring. They will be sent to the shipping address you provide for your garden.
- Beginning in 2015, we will collect "span of bloom" data on the new native plants as well as existing Network plants, consisting of first bloom and end of flowering. We will also evaluate the "garden worthiness" of the native perennial plants. Also beginning in 2015, we will collect pollinator visitation data for the Network garden plants.
- A training event will be held next year in Wooster on April 1, **2015** to train cooperators on plant identification and relevant stages, as well as pollinator

ID and data collection strategies. My goal is to have a smart phone APP developed by then for data collection, in addition to our computer portal.

OSU Phenology Network Plant Additions:

<i>Agastache scrophulariifolia</i>	Blue Giant Hyssop
<i>Dalea candida</i>	White Prairie Clover
<i>Eryngium yuccifolium</i>	Rattlesnake Master
<i>Eupatorium perfoliatum</i>	Common Boneset
<i>Eutrochium purpureum</i>	Sweetscented Joe Pye Weed
<i>Monarda fistulosa</i>	Wild Bergamot
<i>Pycnanthemum muticum</i>	Clustered Mountainmint
<i>Ratibida pinnata</i>	Pinnate Prairie Coneflower
<i>Verbena hastata</i>	Swamp Verbena
<i>Veronicastrum virginicum</i>	Culver's Root
<i>Zizia aurea</i>	Golden Zizia

Frequently Asked Questions:

Q. Will there be an update in Wooster this year (2014)?

A. No, we won't have an update this year. We will meet on April 1, 2015 in Wooster.

Q. Before we decide to add in new plants, what will be involved in the new data collection process?

A. Cooperators will need to collect end of flowering data. This may or may not change how you approach and divide up the data collection tasks at your site. 2014 will be the year to learn how the process works. We are only collecting first bloom and end of flowering data in 2014 for all network plants already in the ground, not the new additions.

Q. What data will we collect in 2015 on bee visitation?

A. Once a week, observers will watch each plant in flower for 15 minutes (between 10AM and 3PM on sunny days), noting bee visitation. Observers will be encouraged to work in teams, with binoculars and chairs. Bees will be grouped into categories for simplicity (bumble bee, leafcutter bee, small black bee, "other," etc.). Not to worry: we'll have plenty of training on this, including score sheets for data collection.

Q. Why are we collecting bee visitation and span of bloom data?

A. Many "pollinator plant" lists exist, but none is specific to Ohio. Much of the existing information uses calendar dates for bloom time across wide regions ([for example, see page 16 of this pollinator plant guide from the Pollinator Partnership](#)). As we know, calendar-based bloom times vary from location to location and from year, making this information of limited value.

In our work with beekeepers, gardeners and farmers who want to develop pollinator habitat, we emphasize “span of bloom” for native pollinator plants and how that bloom spreads out over the season, yet we don’t have data to inform our recommendations. Additionally, we don’t have a clear picture of which bees (honey? bumble? mason? carpenter?) visit which plants. This could help to inform plant selection in specific pollinator mixes, as well as help scientists learn about bee preferences and behavior. Finally, many gardeners want to “help the bees,” but don’t know which plants to use. The “garden worthiness” data will provide input (by and for gardeners) on native perennial plants suited for gardens.

Q. How were the new plants selected?

A. A starting point was Dr. Karen Goodell’s plant list from her research on native bees at The Wilds. Then I consulted experts with Ohio Prairie Nursery, Prairie Nursery (WI), Pollinator Partnership and The Xerces Society. I also talked with naturalists from a variety of parks and natural areas in Ohio. Criteria for selection were plants native to Ohio, attractiveness to pollinators (especially bees), and potential for “garden-worthiness.” As I refined the list, I consulted with Jim Cane and Terry Griswold at the UDSA Bee Lab in Utah on both plant selection and the research protocol. Finally, I worked with Prairie Nursery on plant cost and availability.

Q. What is “end of flowering?”

A. We will use this definition: For the whole plant, virtually all (95 - 100%) of the flowers have withered or dried up and the floral display has ended.

Q. If we’re not having an update in Wooster, how do we get the new plants for our garden?

A. The plants will be shipped directly to one garden contact at each garden. The plants are from Prairie Nursery in Wisconsin, and will be shipped in April. ONE CONTACT FROM EACH GARDEN should visit this website and complete the shipping information: <http://go.osu.edu/natives>

Q. How much space will be needed for the new plants?

A. A 3 x 4 space (or 12 square feet in other dimensions) should work, as per Prairie Nursery. The plants can go in one bed together or can be planted according to the needs of your garden. Plants need to be planted in full sun (6 or more hours of direct sun), at least 15 feet from a parking lot, pond or other heat sink.

Q. Will plastic plant labels be available for the new plants?

A. I hope to be able to provide plastic labels for the new plants in 2015. I am being trained this month on the new label machine at OARDC.

Q. What if our garden doesn’t want to plant the additional plants, or doesn’t have room for them, but we still want to be involved?

A. You don't have to add in the new perennials. Just as with our perennial additions in 2006, you can still participate in the network if the new plants don't work in your garden space. You should still visit this site <http://go.osu.edu/natives> to complete the relevant information so we know you're still on board for span of bloom data collection.

Q. I really liked working with the National Phenology Network. Can I continue to submit data to them?

A. I encourage you to continue your relationship with NPN, especially if you're participating in other studies they support, such as the dogwood study. Just keep in mind that our Ohio Network data collection portal will come back home to Ohio.

Q. What if we're just done....we've disbanded, dug everything up or we're just over phenology?

A. I'm sorry to lose your garden, but I know things change! Let me know, and I'll stop pestering you: <http://go.osu.edu/natives>

Many thanks to Janet Sternfeld, Mike Ecker, Jim Rengert, Carolyn Dunlavy, Lynn Vogel and Bill Jones for reviewing these changes and offering input.

What other questions do you have? Feel free to contact me with your thoughts, ideas and suggestions, now and as we move forward: <mailto:ellsworth.2@osu.edu>

Sincerely,

Denise

Denise Ellsworth
OSU Extension, Department of Entomology