

The Redbud Phenology Project: Fall 2022 Update for Citizen Scientists and Anyone Interested¹

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Abstract: An update on our *Cercis canadensis* phenology project for the fall of 2022 is provided based on trees located in 192 sites in the eastern half of the United States and Canada. The data presented is raw (not adjusted for geographical origin or frequency of observations by geographical area). In 2022, peak flowering occurred in April to May 2022. We invited anyone interested to get involved in our project by signing in Nature's Notebook.

Key Words: *Cercis canadensis*, eastern North America redbuds, phenology, *The Redbud Phenology Project*, *Nature's Notebook*

Introduction

The observations of citizen scientists across the eastern half of the United States and Canada on eastern North America redbuds, *Cercis canadensis* Linnaeus, 1753 (Fabaceae), have been coming in! The data submitted is part of the *The Redbud Phenology Project* that helps us better understand the flowering and fruiting timing of these iconic relatively small trees that has become a widespread ornamental tree in many parts of the world.



As the summer 2022 began to wane, we observed ripe fruits on the trees (Figure 1). For *Cercis canadensis*, we consider a fruit ripe when it has turned dark brown. We do not include empty pods that have already dropped all of their seeds within the data of maturing fruits.

Figure 1. Mature seed pod, or legume, of *Cercis canadensis*. Image credit: eastern redbud ripe fruits by NatureServe via Flickr. Originally published by the USA National Phenology Network, www.usanpn.org, <https://conta.cc/3wegrP6>

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In eastern redbuds, we expect to continue seeing fruits on trees throughout the winter 2022-2023. We consider them as mature fruits and continue to mark "yes" *Nature's Notebook* for these persistent fruits if they have seeds in them. In our next message, scheduled to be communicated in November 2022 we will see if ripe fruits have peaked, and if leaves are beginning to change color, from green to yellow or brown and, later on, the fall.

What are citizen scientists reporting on eastern redbuds?

Thus far, in 2022 citizen scientists are tracking eastern redbuds at 192 sites across the USA and Canada. The map below (Figure 2) shows the sites that have reported "yes" for fruits (triangles) and ripe fruits (squares). The color of the icons indicates the date of first "yes" that followed a "no". Some of citizen scientists have been reporting persistent ripe fruits since last January, but citizen scientists have also observed some early new ripe fruits in June and July.

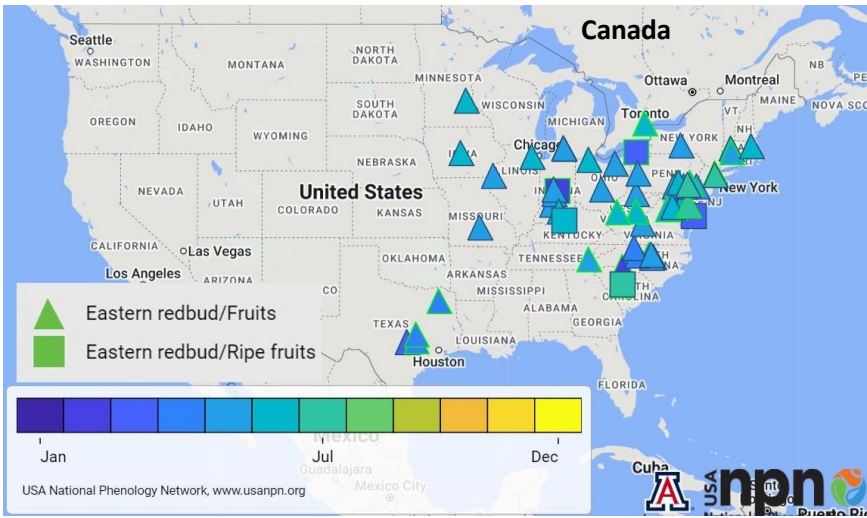


Figure 2. Map of the United States and southern Canada depicting the collecting sites and phenophases of *Cercis canadensis* (January -August 2022). Originally published by the USA National Phenology Network, www.usanpn.org , <https://conta.cc/3wegrP6> .

When citizen scientists are no longer reporting flowers on eastern redbuds, however, many of those flowers were pollinated as now are the citizen scientists are reporting a transition into the fruits phenophase. Citizen scientists have been reporting some ripe fruits, however, it is difficult to distinguish they are new ripened fruits or persistent fruits from 2021. We expect this year’s fruits to begin to ripen more as September 2022 approaches.

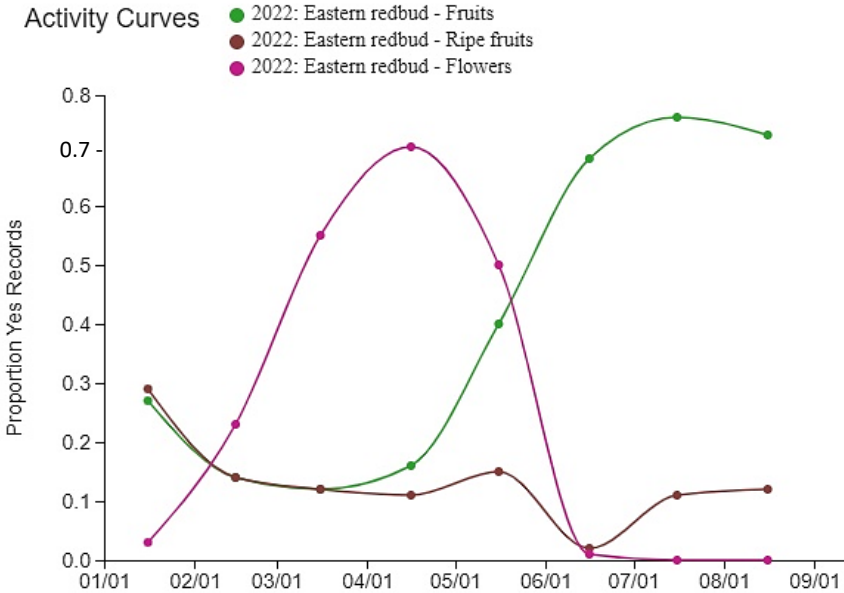


Figure 3. Phenological activity curves of eastern redbud, *Cercis canadensis* (January - August 2022). Originally published by the USA National Phenology Network, www.usanpn.org , <https://conta.cc/3wegrP6> .

Want to get more involved?

If you are interested in helping with, or receiving messages about, *The Redbud Phenology Project*, feel free to sign up using this link: https://lp.constantcontactpages.com/su/hruAXKC/redbuds?source_id=99d50c18-12db-43be-a6e9-1bcb9d71ca7a&source_type=em&c= .

You can earn the badge show to the left by submitting observations of eastern redbud in six different weeks within a year. The badge will appear on your Observation Deck in *Nature's Notebook*, https://www.usanpn.org/natures_notebook . Thank you for your contributions to this project!