

# CRAC News

Citizens  
Restoring  
American  
Chestnuts

FALL 2013

## What's happening with the Citizens Restoring American Chestnuts (CRAC) project?

**O**n May 11 and 18, CRAC volunteers, or citizen scientists, participated in planting workshops and received 555 American chestnut seedlings and 450 seeds. All learned how to plant and care for their young trees and how to input their observations into our National Geographic online map. Thus far, 83 volunteers have submitted their observations, and most have posted these on the online map. Very impressive! We will be sharing your success at the *Home Ground Explore Allegany Outdoors!*

event September 14 at Rocky Gap State Park and the *Appalachian Festival* September 21 at Frostburg State University. Please come join us—we'd love to see you again and hear about your trees.



## Why didn't my American chestnut trees get very tall this summer?

**S**ome of you may have noticed that your seedlings didn't grow a lot this summer. Actually, they probably have grown but most of this was below ground in the roots. Much of the aboveground growth (stems and leaves) of our native American chestnut trees occurs early in the year. As it gets warm, chestnuts produce next year's buds and then stop growing. Your trees got a head start in the Appalachian Lab greenhouse, and thus many had already "set their buds" when you received them. Also as

new transplants, trees—especially nut-producing trees with large root systems—need to invest their energy in establishing roots. But, don't worry. They are alive, and you will likely see lots of aboveground growth next spring!



USDA Forest Service Southern Research Station Archive, USDA Forest Service, SRS, Bugwood.org

## What will happen to our American chestnut trees this fall?

**W**hen trees sense the shorter day length and cooler temperatures of fall, they produce plant hormones that cause leaves to change color and then fall off. The autumn colors appear because the green pigment (chlorophyll) in the leaves is broken down, revealing red, orange and yellow *accessory* pigments. The fallen leaves provide an important input of energy to forests and streams, as many small organisms eat these leaves and are in turn eaten by larger organisms. The timing of changes in plants, like the appearance of new spring leaves and fall colors, is called *phenology*. It is controlled by both

genetics of the plant and the environment they are growing in. For example, trees commonly found at higher elevations or in northern localities change color and lose leaves sooner than trees commonly found at lower elevations or in southern regions. For our CRAC research, we are looking at how phenology varies among trees from different sources and planted in different environments. This is why we ask you to report dates when your trees change color and produce spring leaves. Look around this fall and notice how the environment shapes tree phenology, and share your observations (and wonder) with others and us!



Russell Biebl, Aprin, WI



Chris Evans, Illinois Wildlife Action Plan, Bugwood.org

*Please turn the page.*

## Should I submit more observations this fall?

**Y**ES! All CRAC citizen scientists should submit observations of their seedlings this fall. You will need to complete a new *Spring/Fall Tree Datasheet*. You will record the date when “most leaves are in their fall colors,” as well as the height and tree ID number. Remember that you must complete a separate row for each seedling. Don't forget to post your observations on our National Geographic online American chestnut map *and* to mail your datasheet to us. If you haven't posted and mailed in your spring data yet, please do this as soon as possible so that we have a complete set of observations. Your efforts are greatly appreciated!



## Should I only have one “site” on the online American chestnut map?

**Y**ES! You should have only one “site” for your set of trees on our online American chestnut map (<http://fieldscope.org/map/45>), and you should only create this once. Then, every spring and fall you will enter a new observation for each tree at that site. If you have mistakenly created more than one site, simply copy all your observations to one of these sites and delete the others. If you haven't used the online American chestnut map yet, you will need to create a login and your site and then enter your observations. As always, you can just mail us your datasheets, and we will post your observations for you. If you need help with any of this, please review your *CRAC Online Chestnut Map Instructions* document or contact Kara Hawkins at [chestnut@al.umces.edu](mailto:chestnut@al.umces.edu) and 301-689-7135.

## Current CRAC citizen scientists—

We want your feedback on the CRAC project thus far. This will help us improve our efforts. Please go to the below link to complete a short survey. If you need a paper copy, just give us a call - 301-689-7135.

[http://www.surveymonkey.com/s/crac\\_fall2013](http://www.surveymonkey.com/s/crac_fall2013)

## New to the CRAC project?

The CRAC project engages volunteers in science research on American chestnuts. Our work will help restore these native trees and maintain healthy forests and streams. To learn more, visit us on Facebook, explore our map, or contact us to find out how to join the CRAC team!

Facebook: <https://www.facebook.com/restorechestnuts>

National Geographic online map: <http://fieldscope.org/map/45>

Phone: 301-689-7135

Email: [chestnut@al.umces.edu](mailto:chestnut@al.umces.edu)

The Citizens Restoring American Chestnuts project is supported with funding from the Chesapeake Bay Trust.

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