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## **TREE TALK with BRIAN RILEY**

### **ODNR Division of Forestry & Area 1 Tree Farm Chair**

#### **Small, Small Trees**

As fellow tree enthusiasts, I am sure many of you thoroughly enjoyed last year's special Ohio Big Tree edition of *The Ohio Woodland Journal*. Too often, however, these leviathans tend to overshadow (both literally and figuratively) a diverse assortment of trees that are far less captivating at first glance. This oversight, in my opinion, is a bit of a shame as even the smallest trees are deserving of the recognition they so richly deserve – we just need to take a bit of time to understand them better. As I now veer to the opposite end of the big tree spectrum, I aim to introduce you to a neat little hawthorn that is not at all common in Ohio, but one definitely worth knowing and, yes, even propagating – a true southern shrimp which is at best a loose interpretation of a tree, the one-of-a-kind dwarf hawthorn (*Crataegus uniflora*).

Hawthorns tend to cause great anxiety amongst even the most die-hard taxonomists. While the splitting of species may seem unnecessary, I assure you it is done so for legitimate reasons rooted in their genetic makeup. In hawthorns, the gaps between species are narrow but run deep – so deep, in fact, that they even require subdivision into their own like groups, just as oaks are further broken down into red oaks and white oaks. But do not let dwarf hawthorn keep you guessing, for one of the many appealing attributes associated with this diminutive dandy is that it is quite easy to distinguish from its many other *Crataegus* counterparts. Once you are familiar with dwarf hawthorn, it will likely jump out at you amongst the sea of greenery – that is, when you are not stepping on it.

Aside from its elfin stature, what makes the seldom-seen dwarf hawthorn so easily identifiable is the small, distinctly round foliage (up to a quarter in size) that it displays throughout the growing season, coupled with its relatively large crabapple-like fruit. Interestingly enough, the specific epithet “uniflora” is a bit of a misnomer considering that each cluster may contain up to five individual flowers. Yet regardless of the number of flowers, these clusters yield just a single fruit at the end of each twig. Perhaps “*Crataegus unicarpa*” (one-fruited hawthorn) or “*Crataegus microdendron*” (small-tree hawthorn) would be more fitting names, but alas, science is stuck with another misleading moniker.

When it comes to the detective work of tracking trees, after one knows what to look for, one must then know where to look. If trees could talk and you were to ask the obscure dwarf hawthorn what growing conditions it prefers most, it would probably reply in a manner such as “Where I come from, it's dry-xeric habitat of barrens and open oak-pine woodlands where I might grow to a towering ten feet!” For most of Ohio's trees, the sky is the limit; but for dwarf hawthorn, that limit is no more than chest high, and usually not even that. In fact, some do not even acknowledge Ohio's populations to be worthy of tree status since no plants found here have ever achieved “treedom” by eclipsing the US Forest Service's standard definition of a tree, which includes any woody stem at least three inches in diameter and 13 feet tall.

Typically, dwarf hawthorn in Ohio is quite a scarce encounter – so scarce that it was not even known to occur in southern Ohio (the northernmost extent of its native range) until 1927 when it was discovered growing in the xeric, dolomite glades of Adams County by famed ecologist E. Lucy Braun. It would be 66 years before dwarf hawthorn would be seen again in the Buckeye State, when several plants were

found growing at Davis Memorial State Nature Preserve – not surprisingly located in the same area of Adams County where Braun conducted her original floristic surveys.

In the years following its rediscovery, dwarf hawthorn has received a fair amount of attention in Ohio as it has now shown up on many individuals' radars. Without question, finding a new population would definitely gain one a bit of distinction in the circle of the botanically bent. To date, this humble hawthorn has been spied in six southern Ohio counties, where it has made exclusive appearances in open, disturbed habitats. These locations include prescribed burn units within Vinton Furnace State Experimental Forest in Vinton County, a unique barren on a Certified Tree Farm in Meigs County owned by Ed Aderer, and multiple sites within the Wayne National Forest in Gallia and Lawrence Counties. The most recent entry on the list is Scioto County, where last May I had the great fortune of discovering a small, localized population growing along the edge of an upland oak-pine woods bordering Brush Creek State Forest. What a most opportune time and place that was for my shoelace to come untied!

With each additional find, dwarf hawthorn moves further down the state's rare plant list – an encouraging trend for sure. Today, with 15 known populations scattered across southern Ohio, dwarf hawthorn is now only classified as potentially threatened, meaning that while the plant is by no means ubiquitous throughout the state, it is common enough that laws governing its protection are no longer warranted or necessary for its survival. To be removed from the roster altogether, at least 40 populations must be documented in the Ohio Biodiversity Database, the state's official catalog of rare flora and fauna. Though complete delisting is still a ways off, having extra eyes in the field with the ability to recognize this thorny "treelet" will ensure that its grip on the register of Ohio's most periled plants continues to weaken.

Fortunately for this site specialist, there is no shortage of ideal habitat available throughout much of southern Ohio where additional populations can establish and await discovery. So the next time you find yourself in open, upland woodlands or dry glades in the southern-most reaches of our state, be mindful that you may very well be walking amongst monumental dwarfs – trees truly no less impressive, when fully understood, than the titans featured in last fall's Ohio Big Tree edition. This reality goes to show that even the smallest of trees are spectacular. Let's hear it for the little man!

*The Dawes Arboretum, located on State Route 13 south of Newark, Ohio, is home to two dwarf hawthorns that can be seen year-round in the area of the grounds aptly named Hawthorn Hill.*