

## Blog- Plant of the Month- March, 2018

### Rough-leaf Dogwood - *Cornus drummondii*

By David Parrish

#### Miracles

**deep within the woods**

**a white dogwood blooms~**

**a bluebird cheers**

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Over forty species of birds including bobwhite quail, wild turkey, numerous songbirds, plus some small mammals value the small white berries of the rough-leaf dogwood. Early each Summer, from May to August, the rough-leaf dogwood flowers into clusters of small white flowers with four petals. These flowers attract a variety of pollinating insects such as native bees and butterflies which are seeking nectar.



Figure 1. [dogwood-flowers.jpg] Rough-leaf dogwood flowers. (Lady Bird Johnson Wildflower Center, Wasowski, Sally and Andy. May 1988. Unrestricted)

Then from August until October the flowering clusters give way to the clusters of the much-valued fruit.



These berries are drupes about  $\frac{1}{4}$  inch in diameter which sometimes have small pink spots or streaks. Don't hesitate if you hope to see the fruit of the rough-leaf dogwood because they are consumed quickly and seldom last into the winter months.

Figure 2. [dogwood-fruit.jpg] Rough-leaf Dogwood Drupes. (Lady Bird Johnson Wildflower Center, Bransford, W.D. and Dolphia. 1988. Unrestricted)

This plant readily sprouts from its roots. The rough-leaf dogwood or *Cornus drummondii* is a shrub or small tree that grows near the edge of the forest, along fence rows, or along streams. Farmers use this plant to form shelterbelts in the prairie-plains regions. This plant is commonly used as an ornamental species.

Figure 3. [dogwood-shelterbelt.jpg]  
Dogwood shelterbelt. (USDA, Lincoln  
County Minnesota, SWCD. Date  
unknown. Public)



Leaves are simple and opposite, oblong to elliptic with a pointy tip. They are  $\frac{1}{2}$  to  $2\frac{1}{2}$  wide and 1 to 5 inches long. The upper surface is olive green and roughly, pubescent (hairy). It's the only local species of dogwood with rough leaves. Edges are wavy. Leaves have a distinct, prominent curving vein pattern on the underside of the leaf. By the late summer leaves take on a keeled or boat-shaped appearance. To tell if a leaf is from the genus *Cornus* (dogwoods) grasp it near the tip and at the base and tear it in two laterally. The veins will look like connected elastic threads. Young twigs are opposite and green but turn reddish with age. These are characteristics that can be used to help identify this species.



Figure 4. [dogwood-leaf.jpg] Rough-  
leaf dogwood leaf showing vein  
pattern and wavy edge. (TPWD,  
Chase Koll, Palmetto State Park Plants  
(Quiz),  
<https://quizlet.com/215052336/palmetto-state-park-plants-flash-cards/> )

At Spring Creek Park Preserve, the Garland Parks Department mows annually to sustain the prairie. There, a stand of rough-leaf dogwood has formed into a perfect circular colony 3 foot-high and 10-15 feet in diameter (see photo). Naturalists have used some of these saplings to replace invasive privets removed along an erosion-prone creek bank. The success rate is reported at 90%.





Figure 5. [Dogwood-colony.jpg]  
Rough-leaf dogwood colony in  
Garland Preserve. (Parrish, David.  
January 2018. Unrestricted)

E.O. Wilson concludes his autobiography, *Naturalist*, saying, "...if (he) could do it all over again, ... (he) would be a microbial ecologist." Ecologists in Illinois studied changes in soil microbes as areas transitioned from open prairies to shrubland to forest (Yannarell, et al; 2014). Light woody encroachment into the prairies from the forests in the study sites included rough-leaf dogwood and sumacs. More heavily encroached areas also included honey locust and red cedar. Forest and prairie microbial communities are very different from each other. As the degree of encroachment increases, microbial communities shift to reflect the forest ecosystem. This may be an important process in the succession from grasslands to forests. So, this raises the question, does a land manager want to maintain a prairie or create a forest?

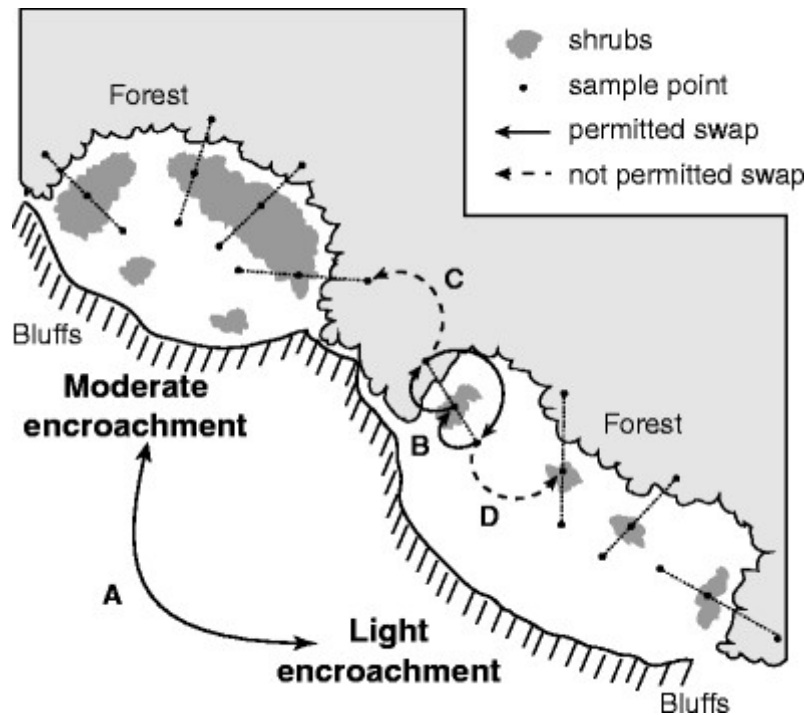


Figure 6. [microbe-study-design.gif] Schematic representation of the study design and analysis. The diagram shows two prairie remnants with differing degrees of shrub encroachment, as well as the surrounding forest and river bluffs. (Yannarell, et al, Microb Ecol (2014))

#### References

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NOTE: Look for Roughleaf Dogwood in bloom this spring along fence rows, forest edges and in the Butterfly Garden at Hagerman NWR.