



The Virtual Gardener—Getting Started Mapping Your Yard

We learned last month that as urban sprawl encroaches on wildland areas, natural habitats become fragmented or disappear altogether, threatening the health of wildlife populations. Typical urban and suburban landscapes look like barren deserts to birds and other critters and are obstacles to their movements. As a member of the YardMap project your job is to turn your yard into a habitat oasis that can act as a refuge for wildlife and as a stepping stone to connect natural wildland habitats. At the same time, by providing feedback to the project you help improve our knowledge of the impact of urbanization on wildlife.

Your first task is to create a habitat map. Selecting the “Map” item from the main menu on the YardMap [website](#) will require you to create a Habitat Network account if you don’t already have one. Once you have done that it’s time to get to work. You start by selecting a location

to map using the map tool on the website. The tool is a regular Google map displaying a satellite image view. It has all the normal features of a Google map but also includes a “super zoom” capability that allows you to zoom farther into the image than you can with a regular Google satellite view. This allows you to fill your screen with an enlarged aerial view of your yard—or even a portion of it—and see many more details than you could see using a regular Google satellite view.

Your next step is to open the “Tool Shed” and use the tools supplied to tell the project what kind of area you are mapping and to outline its boundaries. As you can see from the eight options shown below, you are not limited to mapping your own yard but may also map public areas such as schools, parks, and other areas.

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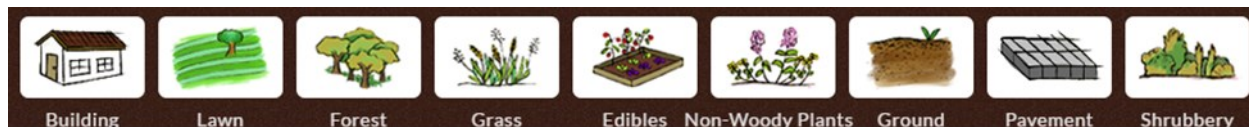
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After defining the area to be included in the map, the hard work begins. You need to define boundaries of sub-areas within your yard called “Habitats” such that they completely cover your property. Each of these Habitats represents an area with different environmental characteristics such as buildings, lawns, forests, grasslands, *etc.* There are a total of 12 predefined Habitats, and a thirteenth designated “Other.” Each is accompanied by a written description to help you with your selections. Nine of the options are shown below.



I found this to be a difficult task. Although some of the Habitats are no-brainers to identify—Buildings, Pavement, and “Edibles” *i.e.*, Food Gardens, others are trickier. For example, about a third of an acre of my one acre property contains 27 trees interspersed with large, raised beds of cactus, succulents, and shrubs interwoven with sandy walking paths. Most of the trees are planted in swales on the upslope sides of berms to capture runoff. I called the area a “Forest” loosely based on the YardMap-provided definition, although it also met some of the YardMap definition of a “Rain Garden.” If I had to pull a name for the area out of a hat, I probably would have called it a “Savanna” rather than a “Forest,” but that wasn’t one of the options. Although there is an “Other” option, the YardMap creators want to discourage the use of that category wherever possible because it is not useful for classification purposes.

Once you have defined a Habitat in your yard, you are invited to describe it using tools provided on the YardMap website. Information requested includes a title, the characteristics of the area, your descriptive comments, and any photos you would like to include. The characteristics requested vary by Habitat. For example, the characteristics requested for a Forest habitat are shown in the following graphic. Characteristics can be chosen by clicking on an option from the list and further described by selecting a descriptor from the wheel.



Your comments are free text and can be anything you would like to add. I chose to provide a very short description of the Forest Habitat. Comments are public, and as on other social media sites can be liked, “unliked,” commented upon, or shared. You may also choose to add photographs of your habitats. If you upload a photo, you must agree to allow Cornell University the right to reuse it if they wish.

Putting the final touches on your map involves marking and identifying individual objects within the Habitats you have marked. There are 32 different objects to choose from ranging from different types of plants to compost bins, rain barrels, and even “catios.” (A *catio*—and this was a new term for me—is an enclosed patio for cats.)

Providing information about individual objects is similar to providing information about Habitats. In the case of plants, you identify them by selecting the genus and species names from a provided list. If the plant is not listed it is classified as “unidentified.” Other information—characteristics, comments, and photos—about objects is input in the same way as inputs for Habitat areas.

All the information provided on your map can be changed and all changes will be immediately reflected in the YardMap project database. This allows you to keep the database up to date as you make changes to your yard and allows you to change your mind about how you have described the features in your yard. It also allows you to play around with the application to become familiar with it without having to worry that your inputs are irrevocable.

Until next time, happy surfing!

Gary Gruenhagen, Master Gardener
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Living Christmas Trees

With the holidays fast approaching, many folks will decide to purchase a live Christmas tree with the intent of planting it outside once the holidays have passed. Great idea! If you are one who would like to pursue this route, here are a few suggestions to help improve the odds of a successful planting.

First, select a variety of tree that is adapted to the climate in which you live. For us high desert folks, good choices include the Afghan Pine (*Pinus eldarica*), Pinyon Pines (*P. cembroides*, *P. edulis*, or *P. monophylla*), Italian Stone (*P. pinea*), and Mugho Pine (*P. mugo mugo*). Both the Italian Stone Pine and the Pinyon Pines produce edible nuts (located inside their cones) as a nifty bonus, though it will take several years after transplanting before you'll be able to harvest any nuts from these varieties. Another variety that will likely do well here is the Aleppo pine (*Pinus halepensis*). The resin of the Aleppo Pine is used to flavor the Greek wine known as retsina.

When selecting your tree, look for a specimen that appears healthy. It should not be dropping excessive numbers of needles and its branches should be quite flexible. Of course, its needles should be bright green, not brown. Inspect the roots if possible to ensure that the tree isn't root bound. Generally speaking, the smaller the tree, the better the condition of its roots.

Once you have the tree home, keep it in a cool location out of direct sunlight and harsh winds (we never get harsh winds here, do we?). Water it well, and thereafter keep the soil moist but not wet. Place several ice cubes on top of the soil each day which will pro-



vide a continuous cool moisture for the root ball. Keeping in mind that the shorter the period of time the tree spends indoors (not more than three or four days is best), bring your tree in when your Christmas sensibility requires that you do so. Try and keep it in a relatively cool location, away from warm appliances or fireplaces. Continue to keep the roots moist.

After Christmas day (again, obey your Christmas sensibility), bring the tree back outdoors, leave it in a cool shady spot for a day or two to re-acclimate to the cooler weather, then go ahead and transplant your tree into the ground. (A good general guide to transplanting trees and shrubs can be found here: *Planting Guidelines: Container Trees and Shrubs*, <http://ag.arizona.edu/pubs/garden/az1022.pdf>) Select a sunny spot with enough space surrounding it to accommodate the tree when fully grown. As with any transplanted tree, dig a hole only as deep as the root ball length and at least two times wider in diameter than the root ball width. Do not amend the soil that you add back into the hole after planting, though it is recommended to remove large stones and the like. Water the soil well and you're done! Your

Christmas tree will provide beauty and shade for many years to come. What a great Christmas gift!

By the way, it is generally not necessary to stake new trees. Flexing in the wind actually serves to strengthen tree trunks, but if you find staking necessary, follow the guidelines in the publication referenced in the previous paragraph. To help conserve water, feel free to apply two or three inches of mulch to the area around the newly planted tree. Do not allow the mulch to contact the trunk of the tree as this can promote rotting of the trunk. Good mulch choices include compost, wood chips, and shredded bark.

Happy gardening!

Bill Schulze, Master Gardener

(Editor's Note: This article written by Bill Schulze was adapted from a December 2013 article published in the *Sierra Vista Herald*.)

TreeCycle

Approximately 33 million cut Christmas trees are sold in North America every year, according to the U.S. EPA. Luckily 93% of those trees are recycled through more than 4,000 available recycling programs. After the holidays, consider recycling your Christmas tree. In Sierra Vista arrange to have your tree picked up at the curb on a Wednesday free of charge by calling (520) 458-7530. Please remove all ornaments and tinsel. Or you can drop your tree off at the City of Sierra Vista's Compost Facility located at 7201 E. Hwy 90 near the Cochise County Transfer Station, Monday through Saturday from 8:00 AM to 2:30 PM. Free yard (green) waste pickups are available throughout the year.

-City of Sierra Vista

Cuttings 'N' Clippings

✿ The next Cochise County Master Gardener Association meeting will be held **Thursday, December 8 from 2:00 to 4:00 PM**. This will be the Christmas Party. For information contact Valerie at:

valeriedavidson@email.arizona.edu

✿ The 2017 Master Gardener class begins January 25 and runs weekly through May. For information contact Valerie at:

valeriedavidson@email.arizona.edu

For information on the Cochise County Master Gardeners, go to the web site at:

<http://cals.arizona.edu/cochise/mg/>

You can also follow them on Facebook at:

www.Facebook.com/CochiseCountyMasterGardeners

✿ Water Wise will not hold a presentation in December. Contact the Cooperative Extension at 458-8278, Ext. 2141 for more information. Check out the Water Wise web site at:

<http://waterwise.arizona.edu/>

✿ **Why be Water Wise?** Arizonans have long known that water is our most precious resource. Many residents presently enjoy a reliable, relatively inexpensive supply of high quality water. However, water use has begun to exceed water recharge in some areas of Cochise County, generating concern about depleting water resources. To ensure adequate water supplies for the future,

all of us need to be more water wise. Water wise ideas can not only help you save money on your water bill, but also benefit the community by conserving this precious resource. Water Wise is a public/private funded University of Arizona Cooperative Extension water conservation educational program. They are here to help you do what you want, be more water efficient. Please let them help you!

✿ The Cochise Chapter of the Arizona Native Plant Society's next program will be held **Friday, December 16 at 5:00 PM**. They meet in the Cochise County Community Development Office conference room, 4001 Foothills Dr. Sierra Vista. This meeting will be the Holiday Members' Night and the program will consist of short presentations by individual members on their botanical adventures during 2016. Following the meeting we will enjoy holiday refreshments. As always, meetings are open to the public. For more information, follow AZ Native Plant Society on their web site:

<http://www.aznps.com/chapters/cochise/cochise.htm>

✿ Cochise County Master Gardeners are available to answer your gardening questions either by telephone call to the Cooperative Extension Office (520) 458-8278 or on-line on our web site at:

<http://ag.arizona.edu/cochise/mg/question.htm>

Cochise County Master
Gardener Newsletter Editor
Carolyn Gruenhagen



**Become a Master Gardener –
Recruiting for the 2017 Class
January 25 weekly thru May**

Would you like to become a Master Gardener? Are you interested in becoming more knowledgeable by receiving university level training in horticulture? Do you have the passion, the commitment, and the willingness to serve your community by providing a minimum of 50 hours of volunteer service each year? Are you willing to assist Cooperative Extension by providing educational information to the community in home gardening and landscaping? If you can answer yes to these questions, we would love to have you join our ranks.

For information go to:

<http://cals.arizona.edu/cochise/mg/about>

*“I think I
shall never
see . . .
a poem as
lovely as a
tree.”*

-J oyce Kilmer, *Trees*

At a Glance Box

It's a Bloomin' Cochise County Native Plant of the Month

Plant: Fendler's Ceanothus (*Ceanothus fendleri*)

Description: Medium-sized shrub. Deciduous.

Blooms: White flowers, early spring and mid-Fall

Use: Excellent Xeriscape plant once established

Culture: Dead branches may need to be trimmed, otherwise very little maintenance

Learn more: Cochise County Herbarium, www.cochisecountyherbarium.org
For an in-depth article, see below.

Karen LeMay, Guest Author, Founder of Pollinator Corridors Southwest (a new nonprofit supporting native plant habitats and their pollinators)
www.PoCoSouthwest.org

Fendler's Ceanothus (*Ceanothus fendleri*)

If you hike in the Huachuca Mountain canyons in early spring, you may have noticed flowering shrubs along the washes that look like they are covered in snow. All of the early pollinators know it well for its nectar. This common woodland shrub is Fendler's Ceanothus, named after the botanist who collected the first specimen in 1847. Augustus Fendler was a well-respected nineteenth century plant collector who spent a year collecting plants near Santa Fe, New Mexico. Twelve southwest plants were named for Fendler. Unfortunately, his original collection of plants housed in St. Louis was destroyed by fire, and his second expedition in 1849 was a failure when a flood destroyed his gear, notebooks and specimens. After these losses, Fendler left the United States and never returned to collect plants in the Southwest.

Found in many counties of Arizona, New Mexico, Utah and Colorado, Fendler's Ceanothus is native to mountain canyons above

Fendler's Ceanothus in full bloom.



about 5,000 foot elevation. This shrub reaches a height of about three feet and is usually wider than tall. Quite often it forms a thicket.

In California, there are many other species in the genus *Ceanothus*. Flowers on the California species are usually showier, sometimes purple, and have common names like Wild lilac. Many ornamental forms have been developed to exaggerate the visually-pleasing flower color and size, but this cross-breeding can make the flower unrecognizable to a pollinator accustomed to the native plants it evolved with.

In Arizona, there are several species of *Ceanothus*, but two are common in the Huachuca Mountains: Fendler's Ceanothus (notable for its fine, needle-like thorns) and Gregg's Ceanothus. Both are beautiful native shrubs that provide nectar in their dense clusters of sweet-scented white flowers for pollinators and berries for birds. In contrast to Fendler's Ceanothus, Gregg's Ceanothus is a more symmetrical shrub with no thorns, and may be more suited in a formal garden setting. But Fendler's Ceanothus generously blooms in early spring when few other plants are providing nectar for pollinators. For this reason, Fendler's is an excellent plant in a butterfly or pollinator garden. However, all plants in the genus *Ceanothus* have nitrogen fixing root nodules that are good for any garden.

In addition to its valuable nectar for pollinators, it is also the host plant for the Arizona hairstreak butterfly and several moths. In early spring it is a beautiful sight to spot this mint green and orange hairstreak nectaring on the white flowers, but



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finding their small, nondescript caterpillars can be difficult.

In contrast to the difficulty in finding the hairstreak caterpillar, the *Crinodes biedermani* moth caterpillar is very easy to spot. The plain brown owlet moth it turns into is found by moth collectors at black light sheets. But the nearly four inch black and green-yellow striped caterpillar, which typically hangs upside down by its middle legs, is quite easy to spot on its host plant. Yes, this species of caterpillar was named after early settler Charles Biederman, who lived in Carr Canyon beginning in 1902 studying plants and insects in the Huachuca Mountains until his death in 1932.

Fendler's Ceanothus has been propagated by Peter Gierlach's Spadefoot Nursery and sold at the Bisbee Farmers Market. Desert Survivors in Tucson also sells this plant from time to time. (<http://www.desertsurvivors.org/plant-lists.html>). Borderlands Restoration in Patagonia sells plants at their greenhouses by appointment or Tuesdays, Wednesdays and Thursdays from 9:00 AM – 12:00 PM.

(<http://borderlandsrestoration.org/plant-propagation/visitor-information-native-plant-nursery/>) If gardeners are having a problem finding native plants to purchase, send me an email.

Spending time to research and find locally native plants for our gardens, as well as knowing we are restoring a food chain for migrating pollinators and other wildlife, is well worth the effort.

Karen LeMay, Guest Author, Founder of Pollinator Corridors Southwest (a new nonprofit supporting native plant habitats and their pollinators)
www.PoCoSouthwest.org

Photos by Robert A. Behrstock



Moth caterpillar, *Crinodes biedermani*, on Fendler's Ceanothus



Butterfly lovers identifying and photographing numerous species of butterflies on Fendler's Ceanothus in Garden Canyon, Ft. Huachuca.