
Wildflowers, Weeds and Wildfires

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LET'S BE PART OF THE SOLUTION, NOT THE PROBLEM

photos: Dave Mills



Three examples of Sonoran Desert "weeds."
(l-r) Mediterranean Mustard; Fiddleneck; Red Brome grass

The fall of 2004 brought with it ample rainfall in the desert foothills area.¹ Not enough to declare the end of the drought, but adequate for a fairly decent to a magnificent wildflower season that will be remembered until the next drought or wildflower explosion, whichever comes first. Thinking about wildflowers caused me to recall an old joke that I love to retell each spring.

If April showers bring May flowers, what do Mayflowers bring? Pilgrims. We do not have to worry about Pilgrims, not the Plymouth Rock variety anyway, but with ample rain we will see pilgrims of a different sort. We call them invasive exotic plants or weeds.

Weeds are basically any plants that we define as undesirable. One person's weed may be another person's greens. This is true for plants such as dandelions, amaranths and many species of mustard that grow in profusion throughout much of the United States. Gary Nabhan, in his delightful book, *The Desert Smells Like Rain*, relates how Tohono O'odham farmers leave some weeds, mustards and amaranth in their corn, squash and bean fields for use as table greens. All are in my

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opinion delicious to eat, but to a gardener growing tomatoes or carrots they are serious competitors for space, sunlight, water and nutrients.

In the Sonoran Desert in the desert foothills area we have a number of invasive plants that find the growing conditions here outstanding. They respond to moisture in the same way the native wildflowers do except for some seasonal and not so minor differences. For example, if there is little or no rain from October through December, but some rain from January through March, exotic invasive species such as non-native cool season grasses, Mediterranean or Arabian grass and red brome tend to grow well, whereas native wildflower species such as lupine and Mexican poppies do not grow as well. If the fall of the previous year has ample rainfall, both exotic and native annuals respond well. This is what we are experiencing this year. Most native annual plants need their seed to spend some time – months or years – in the soil before germinating.

Nonnative cool season annuals such as red brome and Mediterranean grass tend to grow in dense mats forming connections between perennial desert plants, whereas native cool season annuals do not. They are spaced in such a way as to minimize competition for space, water and nutrients.

When the nonnative annuals dry up in late spring and summer, they pose a considerable fire risk because their dense mats burn easily and can help wildfire spread from plant to plant. When they do burn the heat is intense.

In arid grassland that has species that evolved under periodic wildfire conditions, wildfires help recycle nutrients and facilitate the spread of various plants. The Sonoran Desert of the desert foothills area did not develop with periodic wildfires. Plants such as cactuses and paloverde trees conduct photosynthesis on their trunks and stems and are permanently damaged and/or killed when subjected to fire. Before the nonnatives arrived, when a wildfire occurred it generally did not spread far and the heat was not intense. Wildfire damage was limited.

Interestingly, areas of Sonoran Desert upland that are catastrophically burned tend to come back as arid grasslands that are dominated by the same invasive plants that helped spread the wildfire in the first place. This happens because they are adapted to the wildfires their ancestors evolved with in the Old World.



Since the desert foothills area received so much rain this past winter and fall, we should be concerned about wildfire. If the spring remains relatively wet and the summer monsoon arrives on time, early to mid-July or late June to early July, I do not believe the fire season will be all that bad. This does not mean we do not have to be vigilant. We do. If the spring dries out and the monsoon is late or a no-show, I believe the wildfire season could be potentially disastrous for the desert foothills area. We all need to be good stewards and keep our eyes and noses alert for wildfire. Remember that a wildfire that burns an area like the Caroline Bartol Preserve at Saguaro Hill or a riparian woodland like the Jewel of the Creek Preserve will destroy in a few minutes what took years to develop.

No matter the weather I will order a bunch of no smoking signs to post on Desert Foothills Land Trust preserves. Except for lightning strikes, wildfires are caused by human carelessness. Let's be part of the solution, not the problem.

