

Wild Wednesday 9 Sept 2020 by Walt Anderson

George Harrison's "Here Comes the Sun" is streamed more than any other Beatles song, and its spirited, uplifting sound is likely why. While most of us have had enough of baking sun this torrid summer, the sight of a field of sunflowers in their full glory can turn a day of dread into a moment of joy. The floral "Happy Face" of a sunflower is irresistible to most of us.

The Wild Sunflower, *Helianthus annuus*, is found throughout the state at nearly all elevations. It is a sign of late summer, back-to-school times, Labor Day, foraging goldfinches, Painted Ladies and Monarchs.

Yet this quintessential flower of late summer has some surprises for us. First, it is not a flower. That is, the happy face of a mature sunflower is really a "head," an inflorescence of dozens of individual flowers, both ray (what we mistakenly call "the petals") and disk (the fertile flowers from which the seeds will develop). This puts it in the Asteraceae, often referred to (no surprise) as the Sunflower Family.

Second, it is not a long-time native. When first reported in Arizona in 1869, the record was met with suspicion. While common in the Great Plains, it made its way here as an escapee from cultivation or perhaps with seeds carried in from elsewhere (a carpetbagger).

But unlike many plants that weren't here for hundreds of years, like Tamarisk and Russian Thistle, we have welcomed it with open arms. We do not brand it as an "alien" or "exotic" or some other *othering* term.

Restoration ecologists typically want to turn back the clock, to get us back to a time when plants that humans brought in were not present. That has its own definitional problems, of course, as even when the Spaniards invaded North America, they found a flora already modified by the "indigenous" people, people who, for the record, made it here from Asia some millennia before the Europeans.

Even now as climate change threatens the existence of species unable to disperse to more favorable climes, scientists debate about what we should do. Some favor "assisted migration" to act as dispersal agents to assure species' survival. Others fear the consequences of moving a plant where it "doesn't belong." Matt Chew of ASU thinks we are stuck in an outdated paradigm, where we are overly judgmental about plants or animals whose distributions have changed because of human influence. We try to draw lines where boundaries are fluid. The whole world is changing.

Ironically, we even apply the notion of "alien" to human migrants. The fearful build walls. Ecological terms become weapons in defining even what people belong where. "Go back to where you came from" becomes a threat.

Sunflowers thrive in the damp soils around Watson and Willow Lakes, along roadsides when there has been sufficient rain. The Granite Dells ecosystem is a wonderful mix of the old and the new. Let's do what we can to learn how Nature works and keep this ecosystem functioning, even as it inevitably changes.

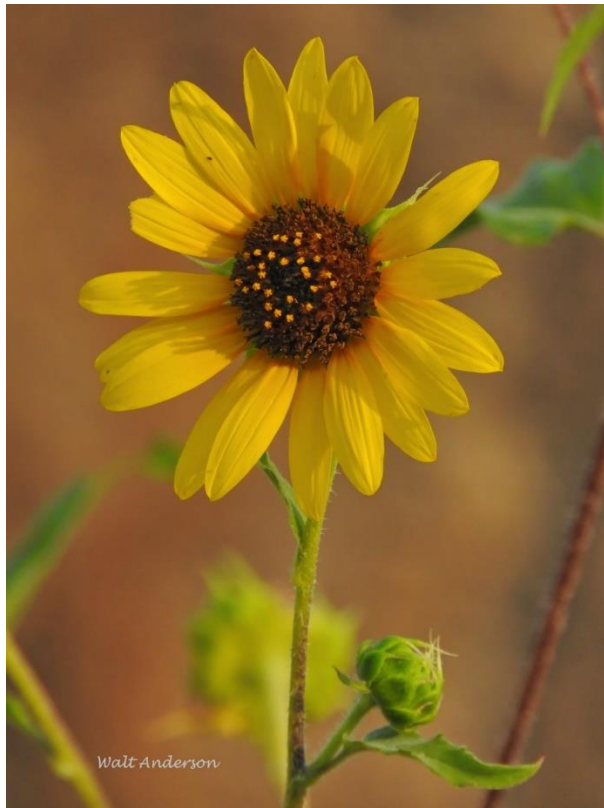
If there ever was a "weed," it is we. We'd be better off to show some tolerance, some humility. Hold up a sunflower as a symbol of togetherness. Grow up to be like a sunflower, and get a head!



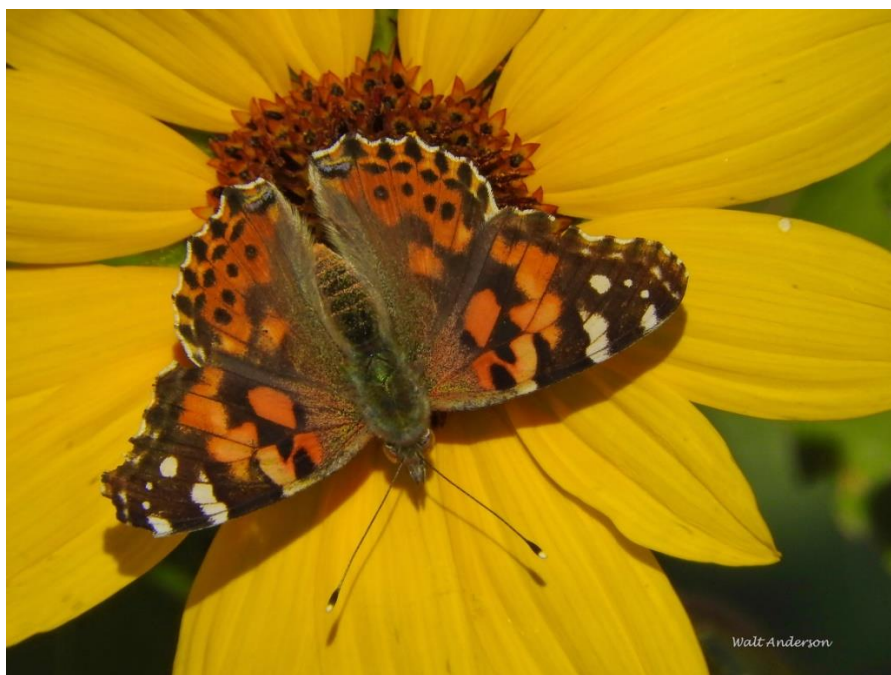
Sunflowers at Willow Lake, Granite Mountain in distance.



The transformation in a single season from seed to tall stalks that are difficult to walk through is impressive. Sunflowers are truly solar-powered!



Clustering in a head or composite like this increases target size, serving as a better attractant to visiting pollinators.



One of the many pollinators that visit this generalized (unspecialized) inflorescence is the lovely Painted Lady.



Another common pollinator is the Monarch Butterfly. Larvae depend on milkweeds, so in a dry year like this one, there may be few Monarchs to visit the sunflowers.



Underside of a Monarch.



Some heads have gone to seed even as other blossoms develop, and the Lesser Goldfinches thus get a longer harvesting season than if they all bloomed at once.



Goldfinches harvesting sunflower seeds even as summer has turned to fall.



Sunflowers are heliotropic, turning their heads toward the sun during the day as they develop. When mature, the heads typically face east to catch the rays of the rising sun. Like the sunflower, we should turn our faces to the sun each morning and express our gratitude at being neighbors on such a beautiful planet.



Summer monsoon rains were mostly a bust here this year. The rainbow gives us hope that good times will again return. Patience pays.