

In January, our featured speaker, Tom Parker, Professor of Biology at San Francisco State University, provided us with an overview of the diversity found in the *Arctostaphylos* genus throughout California. He presented a slide show to illustrate his talk on how the adaptations of various species have evolved to allow for survival within their specific environments. These featured species, as well as many others, can also be found in the “Field Guide to Manzanitas” which Parker coauthored, and copies of which he had available for purchase.



Parker began by stating that the three most important processes which drive diversity within the manzanita plant communities are: amount of exposure to drought, variability of soils, and exposure to wildfires. Species of *Arctostaphylos* have been found ranging from maritime climates with serpentine soils, to areas with soil types as varied as dolomite, granite and sand, while still others survive in the fog zone and snowy climates. However, what they all have in common is the need for their seeds to be exposed to fire in order to germinate.

Parker then spoke on the concept of mutualism; a state in which two different organisms thrive when exposed to one another. In the case of manzanitas, and certain other chaparral plants, conifers can act as mutualistic agents to produce mycorrhizae, which assist with plant survival in poor soils and during times of drought. His research has found that these fungi are highly diverse within stands of *Arctostaphylos*, and that manzanitas share up to 80% of mycorrhizal species with conifers, and up to 60% with oaks.

Under the topic of diversity, Parker explained that the cycle of wildfires allow for new seedlings to evolve and

adjust to their environment as the “adult” population is burned away. The highest diversity within California appears to be along the central coast, where there are many soil types, fog and fewer people. He then shared a slide show presenting a selection of species and their adaptations.

- *A. montaraensis* which is found only on Montara Mtn. and San Bruno Mtn.
- *A. nissenana* and *A. viscida*, which both feature gray, shreddy bark, are found in the Sierra Nevada at 3,200 feet
- *A. myrtifolia*, the rare “Lone Manzanita” which grows in acidic soils in a limited range along the central coast

However, Parker also mentioned that specific features all manzanitas share are the growth of new stems in the spring, followed by new bark in August and September. This new bark growth causes the old bark to split away, creating an outer peel. And all species produce dormant seeds which must be stimulated by smoke chemicals in order to germinate, which are often found in large seed banks.

He discussed how these banks are formed by rodents burying caches for future consumption. When predators reduce the rodent population, the buried seeds’ chances for eventual germination increase. He and his research teams also determined a correlation between the depths at which rodents can find their caches and the depth at which seeds need to be buried in order to survive high intensity heat from wildfires.

In summation, Parker stressed again that climate, soils and wildfires were the three most significant contributors to the diversity of manzanita species found within our varied California climate zones. He also remarked that, of the over 90 identified species, more than 60 have protected status. A short question and answer session concluded the presentation.

🌿 Sabine Steinmetz

🌿 Laura Bauer

CURRENT STATUS OF PLANT RAFFLE

Our Society strives to comply with all legal and governmental rules and regulations. We file taxes, we carry insurance, and we file annual Raffle Reports with the California Office of the Attorney General. They define a raffle as “a type of lottery in which prizes are awarded to people who pay for a chance to win”. This is considered gambling by the State of California, but they allow eligible non-profit organizations to hold raffles as fund-raising events as long as they follow certain rules. One rule is the “90/10” rule as explained on the Attorney General’s website:

“Penal Code section 320.5, subdivision (b)(4) (A) states that 90 percent of the gross receipts generated by the sale of raffle tickets for any given draw are to be used by the eligible organization for charitable purposes. For example: An organization raised \$100 in ticket sales. It would be required to spend \$90 of that amount to further its charitable purposes, and only \$10 could be used to help pay for expenses or operating costs associated with conducting the raffle.”

Conversely, if we purchased raffle plants for \$10, that would be considered a direct expense and we would have to raise \$100 in ticket sales to comply with the 90/10 rule. Non-compliance is considered a criminal offense.

Unfortunately, sales of raffle tickets have slowed greatly over the past few years. We plan to hold more raffles this year, but at this point, items will have to be donated. Our current “Raffle Czar”, John Schoustra, is looking for growers or individuals willing to donate to the Society.

The drop in raffle sales appears to be partially due to the fact that many people leave meetings before the raffle in order to get home earlier. We hope that shifting our meeting times a half an hour earlier will encourage people to stay until the end of the meeting. We hope that holding fewer raffles with more specialized prizes will reignite some excitement around the plant raffle.

SHARING SECRETS RESPONSES:

What is your LEAST favorite gardening chore, and why?

As I clean up after recent rains, the only drawback to the wet weather is the rejuvenation of the snail and slug population in my garden. Disposing of those slimy buggers is definitely my LEAST favorite gardening task.
- Anonymous

From my childhood: Hose winding, raking fig leaves, and picking up fallen figs.
- Lili Singer

Hose wrangling!
- Gail Butensky

Thinning, dividing and finding new spaces to replant bulbs is a real chore, especially in a mature garden. I feel guilty throwing bulbs out, so sharing with friends is my preferred option.
- Anonymous

Gopher control...
- John Schoustra