



A look at the plant that took the spotlight during the Arana Gulch debates and what its well-being says about the area's larger ecosystem

In the middle of Arana Gulch, a 63-acre greenbelt of rolling meadow and oak woodland nestled between Live Oak and Santa Cruz's Eastside neighborhood, there are about a dozen tiny yellow flowers, each about the size of a nickel. And while they are small, mostly dried out this time of year, and aesthetically quite simple, the plants tell a much bigger story than their appearance suggests.

These little flowers, called the Santa Cruz tarplant—or commonly the “Santa Cruz sunflower”—are declared an endangered species by the state and threatened on the federal level.

The few remaining tarplants in Arana Gulch represent just a tiny portion of the flora and fauna that live there, but, according to local biologist and member of the Friends of Arana Gulch group Jean Brocklebank, they are a very important means of gauging the health of the whole park's ecosystem.

“If the tarplant is healthy, then the habitat is healthy,” says Brocklebank, who has worked to save the park from development since the late '90s. “When we work to save the endangered tarplant, we work to save everything else in its dance of life.”

Historically, the tarplant occurs exclusively on the stretch of land between the San Francisco Bay Area and northern Monterey County, which once represented a portion of the state's ancient coastal terrace prairie ecosystem, dating back about 600,000 years.

Today, just 1 percent of that ecosystem still remains, Brocklebank says. The rest of the coastal terrace prairie lands have been consumed by modern development, mostly for agricultural purposes, and, as a result, the tarplant's numbers have plummeted.

As such, Brocklebank and others are concerned about the City of Santa Cruz's long time yet intermittent initiative to pave a half-mile, multi-use pedestrian and bicycle trail through the park, which will join Broadway with Brommer Street. The plan has been embroiled in a controversy dating back 17 years, but has persevered, with some concessions to protect the habitat. However, Brocklebank and others remain opposed.

Last month, the Arana Gulch Multi-use Trail project acquired a Coastal Development Permit, which authorizes construction to begin as early as this month.

As a part of the trail project, the city launched the Arana Gulch Habitat Management Plan, which factors in environmental conservation tactics, according to an Oct. 21 press release from the city. Project manager Aaron Becker stated that the trail project “complements and supports the park's management plan,” and will be designed to minimally impact the ecosystem.

The tarplant has 13 known populations remaining in Santa Cruz and Monterey counties, and only six of those have enough plants regularly sprouting for biologists to feel confident they will persist over the years, says doctor of botany Grey Hayes, whose research has in part focused on the ecology and restoration of the Santa Cruz tarplant and its habitat.

There are several distinguishing features that make the tarplant an especially interesting species.

One, Hayes tell Good Times, is its ability to thrive, bloom, and bear seeds—which the Ohlone Native American tribe harvested and ground on rock slabs for food—during the dry summer months, significantly later than most other flowers. This is possible because the tarplant produces a sticky resin that enables it to retain moisture through the summer.

“It's an incredibly drought-tolerant plant,” Hayes says.

Because tarplants are so short—usually six to 20 inches—and historically populated meadows where the grasses grow tall, the seedbed becomes stimulated into growth by periodic burns and grazing animals, which eat down the grass and allow the flowers to emerge into sunlight. This is what Hayes calls a “disturbance-dependent species.”

The county's largest current population is at the Watsonville Airport, where the grasses adjacent to the runways have been continuously mowed and grazed to maintain pilots' visibility, according to the Elkhorn Slough Coastal Training Program, which does work to facilitate the tarplant species.

That mowing and grazing at the airport helped to significantly increase the plant’s germination process, earning the site the name “Tarplant Hill.”

Up until 1989, Arana Gulch was a dairy farm, Brocklebank says. With cows grazing regularly, the number of tarplants was up around 100,000, but when the farm shut down, the tarplant population declined, almost completely disappearing by the mid '90s.

Last year, Brocklebank counted a total of 18 tarplants at Arana Gulch. This year, 16.

According to an Elkhorn Slough Coastal Training Program study, the most significant resurgence in Arana Gulch's tarplant numbers occurred following an arson fire in 1996. And while the city has experimented with replicating the burn and bringing in grazing animals, the results have not been the same.

While far fewer tarplants are sprouting annually due to the loss of prairie meadows and the relocation of the animals that graze them, there are likely many tarplant seeds lying dormant under the soil, waiting—perhaps for decades—for the right time to pop up into the sun.

In that way, Hayes explains, the tarplant as a species reflects how its habitat is functioning and being managed.

“If we're not managing that habitat correctly,” Hayes says, “species like the Santa Cruz sunflower will let us know.”

