

## **Biologists, Ranchers Hope Cows Will Help Lure Back Butterflies** **Herd gobbles invasive grass in south San Jose**

*by Dana Hull  
Mercury News, San Jose, California,  
June 26, 2008*

Bay checkerspot butterflies are picky eaters that prefer goldfield and purple owl's clover. Both native plants grow on Tulare Hill in South San Jose, but the fickle butterflies have stayed away - possibly turned off by the unsavory invasive grasses now blanketing the steep hill.

So to lure back the butterflies, biologists sent in the cows.



On Wednesday, a rancher herded 40 Angus cows to Tulare Hill's north side. Turns out the bovine beasts - often cast as environmental enemies for their methane emissions, among other problems - love to graze on non-native grasses like Italian rye and squirrel tail, species that now grow in abundance on Tulare Hill and crowd out the threatened butterflies' favorite snacks.

"The cows eat the invasive grasses but leave the native plants alone," said Craige Edgerton of the Silicon Valley Land Conservancy. "In order for the butterfly to survive, it needs cows."



The Bay checkerspot butterfly - with distinctive red, yellow and brown spots on its wings - is unique to the San Francisco Bay Area. But many of its favorite haunts have disappeared in recent decades as open space has given way to development. The nearby hills of Coyote Ridge are a favorite spot, but the federally protected butterflies have been largely absent from Tulare Hill for decades.

Tulare Hill, located near Santa Teresa Boulevard in South San Jose, offers a bird's-eye view of Coyote Valley to the south and the peak of Morgan Hill in the distance.

Calpine operates the nearby Metcalf Energy Center, and it has donated much of Tulare Hill to the Silicon Valley Land Conservancy, a non-profit organization that works to preserve and protect the remaining open space in Silicon Valley.

In March, drenched green from the winter rains, Tulare Hill shimmers with purple and yellow wildflowers. At this time of year, it's golden with bone-dry weeds and grasses. There's not a butterfly in sight - just a visible film of smog settling down over San Jose.

Smog contains nitrogen, which is a fertilizer that has helped the invasive grasses flourish.

"Our industrial world - the power plants, automobiles, factories - is dumping nitrogen onto Tulare Hill," Edgerton said. "Grasses that normally wouldn't grow there are exploding."

Cows have been grazing on the south part of the hill for the past few years, but the butterflies have still not come back. The thinking is that the Bay checkerspot butterfly needs the entire hill to be grazed in order to thrive.

So Wednesday, Justin Fields, a fourth-generation cattle rancher, brought his Angus cows.



Fields came to ranching through his mom's family, the Ramellis. Joseph Ramelli, Justin's great-grandfather, began ranching in the area in the early 1900s. The silhouette of a cowboy on horseback was once a common scene in San Jose. Now it's so rare that local news crews came to watch, cameras ready.

"This sort of fell in my lap," said Fields, 36, who lives in Morgan Hill. "It provides me with pasture for the cattle to graze on."

First comes a goat. Then the cows - funneling through a gate in the barbed-wire fence. Snip, a hardworking border collie born to herd, is at the back, yelping and

bringing up the rear. Fields and his 7-year-old daughter, Jenna, slowly amble up the hill on their horses, Bailey and Buckwheat. Jenna, who is on her way to being a fifth-generation rancher, learned to ride horses when she was 2.

Fields never imagined that his cows would be counted on to help the checkerspot. Imagine: Bovines are bringing back butterflies.

"It's only recently that they've realized that cattle are beneficial," said Fields, who plans to let his cows graze Tulare Hill for the next six months. "I hope the cows get all the invasive grasses."



*With Hwy. 101 as a backdrop, rancher Justin Fields herds cows to the northern half of Tulare Hill in south San Jose near Santa Teresa Blvd. where they can feast on non-native plants. Tulare Hill's native grasses -- a favorite snack for the checkerspot butterfly -- were getting sparse. Nitrogen rich smog was allowing non-native plants to thrive, making it hard for the butterflies to thrive. A conservation group has hit upon a low-tech solution: bringing cows back to San Jose. (photo by Patrick Tehan )*

-----  
Contact Dana Hull at [dhull@mercurynews.com](mailto:dhull@mercurynews.com) or (408) 920-2706.

[http://www.mercurynews.com/news/ci\\_9697767](http://www.mercurynews.com/news/ci_9697767)

Copyright © 2008 San Jose Mercury News