

Puzzle Solved, Butterflies Returned To San Mateo County Preserve **Solution: mow invasive grasses, let flowers insects need thrive**

by Patrick May

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The butterflies of Edgewood County Park have made a glorious return to the scene of the crime.

After inspiring activists to save the 467-acre natural preserve from becoming a golf course 15 years ago, the rare bay checkerspot butterfly died a slow death - the exquisite victim of an ecological whodunit.

But this is a murder mystery with a happy ending, as a dozen transplanted checkerspots were released Thursday to a habitat rescued and restored by dozens of park advocates and one scientific sleuth.

"This is one giant leap for the bay checkerspot," said Bay Area biologist Stu Weiss, the Stanford-trained Sherlock Holmes who traced its disappearance from Edgewood to automobile pollution from nearby Interstate 280. "But it's only a baby-step on a long road for Homo sapiens."

With that, Weiss opened a small plastic bag full of orange-and-white, federally threatened butterflies and summed up what most in the 100-plus crowd were probably feeling:

"Wooooo hoo!"

It was a grand day for Weiss, who had first watched as the population of the butterfly, found only in the Bay Area, started crashing from 5,000 in the late 1990s. It was then that he began devoting his non-working hours to figuring out what went wrong.



Bay Checkerspot Butterfly. (Media News)

"I'd watched other species go extinct, and I said, 'I'm tired of this,'" he said before the ceremony, staged close to the 15-acre test site where it is hoped the checkerspots will now re-colonize.

With grant money from the National Fish and Wildlife Foundation and other sources, Weiss and others zeroed in on Interstate 280. Air samples revealed that the 100,000 vehicles passing by each day were spewing nitrogen oxides on the adjacent parkland, essentially fertilizing the invasive ryegrass that elbowed out the wildflowers the checkerspots needed to survive. While the species had already been in decline, this could have been the last straw.

By 2003, the last checkerspot at Edgewood was history, leaving the world's only surviving population down on grazing lands south of San Jose.

To make matters worse, said Julia Bott of the San Mateo County Parks and Recreation Foundation, "the catalytic converters on the cars are converting nitrogen-oxides into ammonia, which is a fertilizer like we put on our lawns."

What to do? Bott said "we tried goats, burning, weeding - then we discovered that if we mowed at carefully timed cycles, we

could beat back the ryegrass while still allowing the natives to come back. We've been mowing since 2003, restoring the habitat. Now it was time to bring the checkerspot back home."

Thursday's celebration was much more than a simple homecoming. As the checkerspots from Weiss' bag settled atop

nearby flower blooms, then warmed themselves in the late-morning sunlight, a few of them took to the air, flitting about the group of grass-roots warriors who had made their recovery possible: The scientists monitoring the habitat, representatives from local governments and non-profits, and self-described Weed Warriors like 80-year-old Elly Hess, who has been hacking away at invasive weeds for nearly 20 years.

"In the early days, I kept trying to recruit people to help pull weeds and they'd say 'Are you crazy?'" Hess said. "But I can't walk past a weed without getting mad. Killing them, for me, is like going to see a psychiatrist - it lets me get all my frustrations out."

This was a true love fest for the checkerspot.

"This species is the real hero of Edgewood, because it kept it from becoming a golf course in the early 1990s," said Kathy Korbholz, a past president of the Friends of Edgewood who helped get Edgewood designated as a natural preserve. "The checkerspot endeared everyone to this park and made it easier to tell our story."

Now it's back, even though the pollution will continue to fertilize the ryegrass. But the Weed Warriors know their job doesn't end with the return of the checkerspot.

"This release is a milestone for all of us," said Peter Ingram, sporting a Friends of Edgewood T-shirt with a photo of Edward I, the first butterfly transplanted here from South San Jose. "We're walking a fine line between preserving and protecting species, and then carefully intervening as we are today.

"You want Mother Nature to do her thing," he said. "But sometimes, you have to step in and do something. The pollution source on 280 will never change, so we'll constantly have to monitor the habitat. So we're committed - forever."

Bay checkerspot butterfly

HABITAT: Native grasslands that grow in areas of rare soil.

LIFE CYCLE: Mating in mid-spring; eggs are laid in a native plantain or purple owl's clover, in which larvae hatch and feed. Desert parsley and California goldfields provide nectar for adult butterflies.

RANGE: Colonies in San Mateo and Santa Clara counties; populations previously extended around the San Francisco Bay and Peninsula.

THREATS: Urbanization, overgrazing and invasion by non-native plants.

Source: Essig Museum of Entomology

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