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Valuable Environmental Lesson Taught by Checkerspot Butterfly

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Traveling a couple weeks ago, I picked up a copy of The Dallas Morning News and found an interesting tale about a Bay Area endangered and colorful insect called the checkerspot butterfly. The article came from The Washington Post. Since it presented a balanced view of an environmental issue, it is highly unlikely it will appear in any Central Valley major daily, and I thought it would make an interesting story to pass on.

The checkerspot butterfly is facing extinction in many areas of the Bay Area, largely due to urban development. Homes and businesses are continuing to consume checkerspot butterfly habitat.

The article in The Post presented an interesting twist on why the butterfly disappeared from an undeveloped area called Coyote Ridge near San Jose in the Silicon Valley area.

A conservation biologist named Stuart Weiss decided to conduct a thorough study of the butterfly's rapid decline. Not surprisingly, he discovered that the freeway below Coyote Ridge was polluting the area, specifically depositing nitrogen oxide to the nutrient-poor serpentine-rock soil that sustains native grasslands on Coyote Ridge.

According to Weiss, the 110,000 vehicles going by Coyote Ridge on Highway 101 each day were depositing 15 to 20 pounds of N per acre on the ridge annually.

This allowed invasive species to out-compete native dwarf plantain which is critical survival habitat for the checkerspot butterfly. He called this a "drive-extinction."

However, the biologist did not stop there with his research. He also discovered that cattle grazing on the hillside actually helped protect the butterfly from extinction on the ridge.

The cattle were helping the butterfly by consuming the grasses that threatened the dwarf plantain. When local ranchers stopped grazing the hillsides, things only got worse for the butterfly.

The ironic part of this is that if you look up articles and research papers on the plight of the checkerspot butterfly, grazing is cited one reason for the decline of the butterfly populations.

Overgrazing can destroy habitat and ruin the land, but in the case of the checkerspot butterfly, good grassland grazing management actually enhanced its survival.

California's burgeoning population remains a threat to the survival of this colorful butterfly, but Weiss' work revealed to local businesses, including cattle ranchers, and politicians that by working together this special species could be saved from extinction.

Weiss' solid research led to the establishing of a couple of plant reserves to provide habitat for the butterfly. The article did not say it, but I suspect cattle grazing is a significant element to maintaining habitat for the butterfly.

In this era where environmental issues like endangered species often evolve into warfare waged by unrelenting radical environmentalists, it is refreshing to learn where solid science revealed the total truth about an environmental issue. And that truth led to a viable solution from the government and the private sector.

In a state with a population now of 36 million and headed for 46 million in less than 25 years, it would be well to remember the tiny Bay checkerspot butterfly and how it is surviving thanks a group of Californians working together and using solid science to address an environmental issue.