

## Oregon Winery Van Duzer Vineyards Protects A Butterfly From Extinction

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*I cover wine at work, with attention to makers and growers.*

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In 2000, a remarkable discovery was made in a refuge area near Corvallis, Oregon: the sighting of the Fender's blue butterfly (*Icaricia icarioides fenderi*), a species thought to be extinct.

This discovery prompted research and conservation initiatives aimed at protecting and revitalizing the butterfly's limited habitat. The butterfly's flight pattern is restricted to a very short window, making it

difficult to locate. However, in 2001, the butterfly was also found in the Baskett Slough National Wildlife Refuge, just across the road from Willamette Valley winery Van Duzer Vineyards.

This sighting encouraged the winery to team up with the U.S. Fish and Wildlife Service and local conservationists to aid the recovery of the rare Fender's blue butterfly and bring it back from the brink of extinction.

### The conservation efforts

In the early 2000s, the Oregon chapter of the U.S. Fish and Wildlife Service proposed a federal grant to work with farmers and landowners to create and reclaim habitats for the butterfly. This initiative was essential because the butterfly relies on a specific local plant—the spur lupine—to lay its eggs. The larvae feed on this plant, making it crucial for the butterfly's life cycle. Originally rich with prairies, the Willamette Valley has undergone significant changes due to development and prolonged fire suppression efforts—reducing the butterfly's habitat and, consequently, its population.

When Van Duzer's vineyard manager, Bruce Sonnen, joined the winery in 2012, the winery had already joined the landowner cooperative agreement and had been



committed to the project since 2009. The agreement allowed for on-site conservation efforts, including mowing down invasive grasses and blackberries to create open areas for the spur lupine and other native plants. These efforts aimed to create a habitat where the butterfly could thrive. “The idea was that if you build it, they’ll come,” says Sonnen.

### **Patience leads to success**

Despite Van Duzer’s efforts, from 2009 to 2013, no butterflies were found on the vineyard’s property—a condition referred to as a zero baseline. “So five years straight, nothing,” says Sonnen. Though disappointing at the time, the Van Duzer team understood that conservation efforts would pay off in the long term.

“And then 2014,” recalls Sonnen, “She even has a name, Eve. We found it!” A Fender’s blue butterfly was on the Van Duzer property.

Subsequent years saw a gradual increase in sightings on the property, with four butterflies found in 2015 and sixteen in 2016. The conservation team now conducts annual surveys to monitor the butterfly population. The butterfly’s flight pattern is brief, from mid-May to mid-June, making sightings a special occurrence.

Unlike species such as the Monarch, Fender’s blue butterflies don’t migrate. When the eggs are laid, they roll into the dirt where they hibernate. The larvae emerge in the spring, then turn into pupas, and finally develop into butterflies, which fly around for a couple of weeks. During this time, they lay their eggs and the cycle begins again.

### **The broader impact**

The story of the Fender’s blue butterfly highlights the interconnectedness of ecosystems and the importance of conservation efforts. The vineyard’s work also had positive effects on other species. For example, the removal of invasive plants allowed native oak trees to flourish, benefiting birds like the acorn woodpecker and the Oregon vesper sparrow.

sheep, which helped maintain the habitat without the need for mechanical mowing. This method proved beneficial for the plants and the soil, says Sonnen, further supporting the diverse ecosystem on the vineyard. Instead of mowing and creating a two or three-inch layer of biomass on the ground, which Sonnen explains makes it difficult for flowering plants to grow, sheep eat the vegetation.

The material then passes through the sheep's digestive system and fertilizes the ground, improving the growth and pollination of flowers, which attract bees, birds, and other pollinators. The Van Duzer team found that removing blackberries and scotch broom also benefits oak trees, allowing acorn woodpeckers to collect acorns and store them in the trees for winter.

Now, several breeding pairs of acorn woodpeckers and Oregon vesper sparrows inhabit the area, says Sonnen. Unlike typical tree-nesting birds, Oregon vesper sparrows use native grasses to create structures on the ground for nesting. Sonnen says the removal of non-native plants has facilitated the return of these native bird species, enabling them to thrive in their natural habitat.

## **Unexpected outcomes**

When Sonnen proposed implementing flash grazing, the U.S. Fish and Wildlife Service had concerns about the impact on the ground nests of Oregon vesper sparrows. It wanted to ensure that the birds had finished nesting and that the eggs had hatched before the sheep were introduced, fearing the sheep might trample the nests.

This is where the interplay between animals gets even more interesting. Sonnen recalls that in 2013, the warm season arrived unusually early and bird nesting and the Fender's butterfly flight were completed by early May. Consequently, Sonnen was able to bring the sheep to the Van Duzer property by the last week of May and the first week of June. While touring the area with U.S. Fish and Wildlife representatives, a nest of vesper sparrow eggs was discovered inside a teepee of grass. The sheep had avoided the nest, eating the vegetation around it but leaving the nest undisturbed.

This demonstrated that the sheep could coexist with the ground-nesting birds without harming their nests. "They ate everything else down, including grasses that were three feet tall," says Sonnen. Everything, except right where that one little nest was placed. "It blew the minds of the biologists for the U.S. Fish and Wildlife," he says.

## **Recognition and continued commitment**

Van Duzer's work continues to pay off for wildlife. In 2023, the Fender's blue butterfly was downlisted from endangered to threatened. According to the U.S. Fish and Wildlife Service—which calls this creature the fairy of the prairie—the Fender's blue butterfly now inhabits twice the acreage it did when listed as endangered in 2000. Its known range has grown from four counties to six, and the number of known occupied sites has quadrupled.

This milestone is a testament to the dedicated conservation efforts of organizations and individuals like those at Van Duzer Vineyards. Van Duzer is also part of the LIVE (Low Input Viticulture and Enology) certification program, emphasizing sustainable and conservation-focused farming practices. Sonnen, now a board member and chairperson of LIVE, continues to champion these efforts.

## **A model for conservation**

Van Duzer Vineyards stands as a model for how agriculture and conservation can coexist. The vineyard's commitment to sustainability extends beyond wine production to preserving the natural habitat and supporting local wildlife. As Sonnen and his team continue their work, they serve as a reminder of the profound impact that dedicated conservation efforts can have on even the most fragile ecosystems.

For those who visit Van Duzer, the sight of the delicate Fender's blue butterfly fluttering among the native plants is a powerful symbol of hope and resilience. It's a testament to the vineyard's belief that, with concerted effort and cooperation, it's possible to bring species back from the brink of extinction and create a thriving, balanced ecosystem.

Guests can plan their Van Duzer visit around the life cycle of this rare butterfly. "The flight pattern of the Fender's butterfly consists of a very limited time window," explains Sonnen. He says this happens around the middle of May till about the middle of June, depending on weather.

From the Van Duzer tasting room, the view to the west is of the native prairie habitat. "You can look out and where the flowers are, you'll see the little blue butterfly flapping around out there," says Sonnen.