

Managing your land for biodiversity

BY SUZIE SAVOIE

Many of us are lucky to own property that borders publicly owned Bureau of Land Management or US Forest Service land. In many areas that land still has intact or healthy native-plant communities that support an abundance and diversity of native pollinators, birds, and wildlife. Many of our privately owned properties also benefit from having relatively intact habitat. However, around our homes, gardens, farms, and developments, in many cases that habitat has been degraded, altered, or eliminated.

Through the use of native plants, landowners can restore or increase the biodiversity on their land to compensate for the habitat loss caused by homesite or farm development. The Applegate is rich in biodiversity, partly because it is located in the Siskiyou Mountains, one of the most botanically diverse regions of North America, but also because of the large amount of publicly owned land that has not been altered and developed in the same way that private land has. Eighty-six percent of the United States is privately owned, and 45 percent of Oregon is privately owned. As private landowners there is a lot we can do to manage for biodiversity to support intact native-plant communities and wildlife habitat.

“Landscaping in this crowded world carries both moral and ecological

responsibilities that we can no longer ignore,” says entomologist Douglas Tallamy. The research of Dr. Tallamy, an entomology professor at the University of Delaware and author of *Bringing Nature Home* (Timber Press, 2009), has shown that nonnative ornamental plants support 29 times less biodiversity than native ornamental plants. Currently, however, 80 percent of the plants in our suburban landscapes in the US are nonnative. This is a problem because 90 percent of the insects that eat plants can develop and reproduce only on the plants with which they share an evolutionary history.

Here are some examples: Monarch butterfly caterpillars eat and develop on native milkweed; Clodius parnassian butterfly caterpillars eat and develop on native bleeding hearts; buckwheat blue butterfly caterpillars eat and develop on native buckwheat; red admiral butterfly caterpillars eat and develop on stinging nettles; snowberry checkerspot butterfly caterpillars eat and develop on native snowberry plants—and the list goes on.

Without the native plants that insects need to reproduce, the food web for native species is diminished or destroyed. Tallamy’s research demonstrates that native plants (annuals, perennials, and woody species) support, in general, *three times* as many species of butterflies and



Plant native plants on your land to increase biodiversity and benefits of pollinators and wildlife. Photo: Suzie Savoie.

moths as introduced plants. Native woody plants, specifically, used as ornamentals in gardens support *14 times* as many species as introduced ornamental plants. Plants and animals that have evolved together depend upon each other for survival, whereas many cultivated and hybridized plants sold in nurseries may lack essential nutrients and provide inadequate access to pollen and nectar, or they are not used as larval host plants. They are essentially useless to native insects and wildlife.

The use of native plants in landscaping is essential to ensure breeding birds have enough insect prey to eat. Because caterpillars are so reliant on native plants to reproduce, caterpillars tell us a lot about the health of an ecosystem. Researchers have found that a single breeding pair of Carolina chickadees must catch 7,500 caterpillars to rear one clutch of young and that the only yards able to produce enough chickadees to sustain a stable population

were those with a plant composition of more than 70 percent native plants. Although this research was for chickadees on the East Coast, the same is probably true for many bird species in our region as well.

The US Natural Resources Conservation Service also advises a plant composition in yards that’s at least 75 percent native. By incorporating native plants into your landscape you are creating a sanctuary that benefits wildlife and biodiversity.

Planting native plants in degraded habitat in undeveloped areas of your land increases biodiversity and benefits pollinators and wildlife. Native potted nursery plants grown from locally sourced native seeds can be planted in appropriate areas in the fall for the best establishment. Locally sourced native seeds can also be sown into burn pile areas, disturbed sites, and areas with sparse vegetation in the fall and winter to increase species richness and diversity.

Native wildflowers and shrubs are beautiful! Reestablishing native plants in an area currently dominated by nonnative grasses or invasive species will beautify your land and leave an ecologically beneficial legacy for the future.

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■ BRAD BARNES

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22 years of those years he was the logistics-maintenance officer!

I would hazard a guess that most Applegate residents have not had the pleasure of meeting Brad, since most of his workdays are based around the maintenance and repair of the district’s 28 vehicles and engines and seven fire stations. However, because Brad also serves the district as an emergency medical technician (EMT), a National Fire Protection Association firefighter, and an engine boss at the rank of division chief, he does frequently go on emergency calls.

Brad, along with his wife, Colleen, and their four children, moved to the Applegate Valley in the late 1980s. Shortly after, Brad happened to notice a “Volunteers Wanted” sign in front of the AVFD headquarters. A trained mechanic, Brad decided to volunteer his mechanical skills to help the district. Then-chief Ron Yarborough said he’d rather train Brad as a volunteer firefighter. Excited at the prospect of serving his community, Brad attended the very first Rogue Valley Firefighter Academy in 1988!

Over the years Brad has seen a lot of changes in our fire district. A total of seven stations now dot the valley to meet constituents’ needs. (The closer the station and fire engines, the faster firefighters can get to our homes!) And the district now has seven paid staff members, along with dozens of volunteers, to respond to our emergencies across the valley.

I usually have our scanner on at home to be aware of activities around the valley. I’ve noticed that Brad comes across as very calm, almost unflappable. He said he taught himself to do this because it’s important to be “calm and collected” for the patient. He also feels it indicates leadership and control of the situation.

I asked Brad about his most frightening call. He described fighting an interior structure fire, saying it’s an eerie feeling being inside a building with flames all around. It’s hard to breathe, the visibility is low, and you have to yell to communicate with your partner. He said the new SCBAs (self-contained breathing apparatuses) really help with communications as well as safe breathing. He was quick to say that saving a home or any structure from fire is *extremely* satisfying and rewarding, especially being able to help save a family’s valued possessions.

Brad also shared how rewarding it feels to help an elderly person who has slipped and fallen in the bathroom, on the stairs, etc. And delivering babies? I asked. Oddly enough, he has not delivered a baby on a call in all of these 30 years!

Brad told me that he really likes the challenges of fighting wildland forest fires.



Fire engine renovated by Brad Barnes, former Chief Fillis, and Terry Riley in 2006.

He described how the weather plays an integral part in any wildland fire; it can differ from one part of a fire to another, and it can change quickly. (I’m thinking maybe there’s a bit of scientist here?)

Brad also noted that he feels our constituents are super savvy and “dialed-in” to their responsibilities as landowners by providing safe driveways and bridges, and, of course, by continuing to do their fuel-reduction chores each year. (So let’s keep it up—firefighters *do* notice and will go the extra mile for us!)

I asked Brad what his most unexpected surprise was as a firefighter—something that he hadn’t expected to feel. His response: having to perform CPR on a friend, realizing that the outcome might not be what he was hoping for. He said it’s still difficult for him, even after all these years.



In retirement, Brad Barnes will spend more time fishing and restoring old cars.

Happier thoughts were needed, so I asked about retirement plans. What will Brad and Colleen be doing next year? Brad plans to find more time for hunting and fishing, both fresh and saltwater. (I forgot to ask who does the cooking of said bounties.) Brad also spends a lot of his downtime restoring old cars. A 1955 Dodge Royal Lancer is his next project.

And, of course, there are the grandchildren to visit! Brad’s extremely proud of his grandson, who contracts as a wildland firefighter during the summers.

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Note: Watch for my article in the next issue (fall) of the Applegater. I will discuss the logistics-maintenance officer’s duties and tasks and include some cool pictures. You might be surprised...and possibly interested?



Before burning outdoors any time of year, check with your county to make sure that day is an official burn day and not a **NO** burn day.

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