

Book Review- Nature's Best Hope: A New Approach to Conservation That Starts in Your Yard

JoAnn Hackos February 2, 2020 :

by Douglas W. Tallamy

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If you're not already convinced that planting native plants is a good idea, Doug Tallamy's new book will definitely convince you. Tallamy is the author of the best-selling *Bringing Nature Home*. His new book, *Nature's Best Hope*, makes a strong case for changing the way we view native and alien plant species in North America and around the world.

Tallamy speaks about the environment in the tradition of Aldo Leopold and E. O. Wilson. He tells us that "our relationship with the earth is broken. ... we need a new conservation toolbox," one that he provides in detail in this book.

I hope that by now you are all familiar with the *Science* report focusing on the loss of 3 Billion birds in North America in the past 50 years. Tallamy points out that these losses will continue unless we change how we manage the land to support plant, insect, bird, and animal diversity. He talks about habitat fragmentation that frequently "reduce small populations to zero...." Studies show that even habitats that seem large enough to protect a species are not adequate. Even our western national park system has been insufficient to protect our western birds. Instead, we need to restore habitat where we live, not only in our park system. It's our best hope for developing a sustainable world.

Tallamy makes a compelling case against Kentucky bluegrass and other turfgrasses. He reminds us that we have far too much lawn. "Turfgrass has replaced diverse native plant communities ... in more than 40 million acres." We are adding about 500 square miles each year as well. Sixty percent of our water in the west goes to watering lawns. Lawn fertilizers contaminate our water supply. Lawns produce little atmospheric oxygen and fail to support native bees and other insects. Lawns are a dead zone.

Fortunately, Evergreen supports very few lawns. But that doesn't mean we shouldn't care about the landscape paradigm elsewhere. Or, that we shouldn't be vigilant about the introduction of alien plant species into our neighborhoods. If we don't restore native plant species to our Evergreen environment, we risk degrading the "carrying capacity" of the landscape. Tallamy explains that the carrying capacity is the number of individuals of a species that can be supported indefinitely without degrading our local resources. In Evergreen, we need to look at the carrying capacity of the Bear Creek watershed, for example. Are there fewer species now than there were 50 years ago? Are there fewer numbers of birds and animals among us?

What I think is so fascinating about *Nature's Greatest Hope* is how much we need to know about the value of native plants and the danger of alien plants. Tallamy explains what happens to the population of insects when the local plants are not the ones they have evolved to eat. The insects decline, the pollinators decline, and the birds that eat them and feed them to their young also decline. The chapter titled "Restoring Insects, The Little Things That Run The World" is my favorite. The focus is on caterpillars, which contain twice as many carotenoids as other insects. Birds need carotenoids to raise their young. Fewer caterpillars mean fewer hatchlings. The numbers are astounding. A pair of Wilson's Warblers brought in 812 caterpillars per day, or 4,060 in five days they were observed. Remarkable. It appears that here in the Ponderosa Pine we need more groundcover under the trees to support more caterpillars. When we visited an old-growth Ponderosa forest last year in Washington state, we were amazed by the extensive shrubs and other groundcover supporting a large number of birds.

Tallamy points out that we need to be very careful about which plants we label "weeds." Many native plants that support native species of insects and birds are erroneously labeled weeds by the horticulture industry or the cattle industry.

In my neighborhood at Soda Creek, I am concerned about mowing. Some landowners have begun to mow the meadow along CR 65. In late fall, they like to remove the dead stalks of the grasses. But mowing in the fall destroys the native bees that overwinter in dead stalks. It destroys the eggs of insects, the chrysalises of swallowtails, and the cocoons of countless moths. "Fall mowing also eliminates the seeds that goldfinches, sparrows, and juncos rely on all winter long." So watch out in your neighborhood for fall mowing. We need the stalks!

Tallamy provides a great list of the actions we can take to restore the natural world:

- Shrink the lawn
- Remove invasive species
- Plant keystone genera (native plants)
- Plant for specialist pollinators (like milkweed for Monarch butterflies)
- Network with neighbors
- Build a conservation hardscape by installing window well covers, don't mow at dusk, set a mower (if you have to mow) at four inches
- Install a bubbler
- Install several small bee hotels, not big ones
- Do not spray or fertilize

- Treasure your needles
- Educate your neighborhood association and rewrite the rules

I do hope everyone in Evergreen Audubon reads *Nature's Best Hope*. We are planning an educational program in the spring around native plant gardens. I hope you'll be well prepared for the program.