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The Quarterly Journal of the Florida Native Plant Society

# Palmetto



A New Species of Native Orchid? • A Conversation With Doug Tallamy • Florida's Botanical Art

Everyone with access to a patch of earth can make a significant contribution toward sustaining biodiversity. *Bringing Nature Home* explains how.

Review by Sue Dingwell

The origins of Douglas Tallamy's book, *Bringing Nature Home* are rooted in his purchase of ten acres of land in southeastern Pennsylvania that had been invaded by alien plants such as multiflora roses, bittersweet, and Japanese honeysuckle. As Tallamy and his wife began to remove the exotic species and replace them with natives, he noticed a striking pattern. While native plants exhibited normal signs of insect presence, exotics were left largely untouched. Knowing that so many animals depend partially or wholly on insect protein for food, he came to some alarming conclusions about the effects of the alien invasion of plants in North America. Subsequent research, combined with a strong desire to help the public understand the consequences of their gardening choices lead him to write *Bringing Nature Home*.

This is a book that will delight and educate native plant supporters whether they are new converts, or have been believers for many years. It incorporates fascinating explanations of plant/insect interactions, tightly reasoned arguments for preserving biodiversity, and practical advice for gardeners, including indices by region listing which plants attract specific insects, all presented in clear, easily accessible prose.

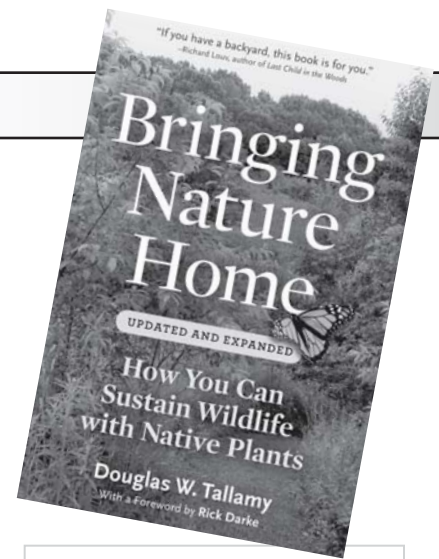
Those who are involved in advocacy for natives will find plenty here to upgrade their toolkits. *Bringing Nature Home* goes far beyond the standard three bullet points (less water, less fertilizer, no pesticides) and deep into the heart of the wonderfully intricate web of life that sustains mankind on this planet. The author explains in detail how and why native plants play such

an important role in sustaining viable ecosystems and why the suburban garden has become a critical component of efforts to maintain them.

A comprehensive discussion of trees comprises a chapter entitled "What should I plant?" The answer is "All native plants are not equal." Trees that support the greatest number of insect herbivores will consequently support greater wildlife diversity in the restored suburban garden.

The oak tree turns out to be a superstar in this category, and the genus has numerous species native to Florida. Although oaks provide nut forage for vertebrate wildlife and nesting cavities for dozens of bird species, what makes the oak a quintessential wildlife plant, is that no other genus supports more species of Lepidoptera (moths and butterflies), which means more types of bird food. Oaks are the "lifeblood for many large, showy and positively bizarre lepidopterans." Examine the underside of an oak leaf, urges Douglas Tallamy, and you will see caterpillars unlike any you have seen before.

The increasing loss of bird species has long been a sad fact in North America, and here the critical importance of insects becomes plain. While adult birds may eat the berries of exotics such as bittersweet (or Brazilian pepper in Florida), most bird species depend on insect protein and fat for the nutrients required to make eggs and feed fledglings. It won't matter how many berries you provide in your garden for adults birds if they are unable to reproduce – and if we don't provide the native plants the insects live on, there won't be any insects for birds to consume.



**Bringing Nature Home**  
By Douglas Tallamy  
Published by Timber Press  
360 pages. With 312 color photos; diagrams and tables.  
ISBN-13: 9780881929928

The habits and preferences of insects are described and beautifully photographed in the chapter called "What Bird Food Looks Like."

"Our nearly universal animosity toward insects is understandable, but seriously misplaced," says Tallamy. Of the 9 million or so species of insects, only 1 percent affect humans negatively. The other 99 percent pollinate plants, return the nutrients tied up in dead plants and animals to the soil, keep populations of insect herbivores in check, aerate and enrich the soil, and, provide food either directly or indirectly for other animals.

One of the many interesting experiments described is one in which Tallamy viewed thousands of photographs taken from a camera placed next to a wren's nest box. His job was to identify the arthropods (the species-rich, jointed-feet class of insects) in the wren's beak. He learned that spiders make up half of the prey items that wrens feed their young. The conclusion – now is the time to stop paying pesticide companies to eliminate insects from our restored suburban gardens.

This chapter provides information on the specific preferences insects have for the plants they choose as larval hosts,



and nectar and food sources. Here also is an educational feast of marvelous insect adaptations: the clever bolas spider who hides on leaf spots and hunts by swinging from its front leg a single strand of silk tipped with a glob of glue; the butternut woollyworm who looks like a segment of white feather boa; the milkweed beetle, who knows how to disable the defense system of a plant by snipping precisely midrib, thus blocking the flow of mouth-gumming latex sap; and caterpillars who know how to fold and tie leaves.

“When I talk about biodiversity in suburbia, I am talking about a natural

resource that is critical to our long-term persistence in North America” says Tallamy. The author’s point in writing *Bringing Nature Home* is actually the fact that this is good news – here at last is a cause we can each do something about. Developers are paving over fields and forests, while land available for conservation is fast running out. But suburban gardens now occupy a large enough percentage of land to make a significant contribution in changing the downward slide.

In conclusion, the book presents a wealth of resources not only to educate ourselves, but also to help us carry our

message about native plants to the larger community. Not the least of its attractions is the books’ numerous “sound bytes” that make great impact. Here is one that this writer has used to end several presentations lately: “Gardening with natives is no longer just a peripheral option favored by vegetarians and erstwhile hippies. It is an important part of a paradigm shift in our shaky relationship with the planet that sustains us – one that mainstream gardeners can no longer afford to ignore.”

## A Conversation with Douglas Tallamy

Douglas W. Tallamy received a Ph.D. in Entomology from the University of Maryland in 1980. Since the publication of his book *Bringing Nature Home*, he has been in constant demand as a speaker, appearing at locations such as Longwood Gardens and the Morris Arboretum. On February 26, 2009, Sue Dingwell, President of the Palm Beach Chapter of FNPS, interviewed Dr. Tallamy for *Palmetto*.



**SD:** *Have you been surprised by the response to your book?*

**DT:** Completely surprised. I never planned to write a book in the first place. I realized no one was doing the kind of research I thought was needed to verify that native insects are largely not supported by the alien plants that cover so much of our suburban gardens. So I started some research

projects. I included some of the research along with a map of the food web showing interactions between specific plants, insects and animals into a pamphlet, and that eventually evolved into the book.

**SD:** *When did you first realize the book was going to be a hit?*

**DT:** The book was published in November of 2007. My friend Richard Darke noticed that it had climbed to number 3,000 on Amazon’s rating system. I didn’t think that was very significant. Then that spring Anne Rivers gave it a good review in the New York Times and it climbed to number 34. Timber Press sold out at that point and we lost the whole spring getting it reprinted. Soon, speaking requests began to stream in, which I had in no way anticipated.

**SD:** *As you make the rounds on the speaker circuit, is there one question that has been recurring over many geographical areas?*

**DT:** Yes – “Are cultivars as good as the original native plant?”

**SD:** *Are they?*

**DT:** If the change is just one of size it would probably not have a bad effect. However, if creating a cultivar involves a difference in the chemistry of the leaf, or the flower color, then the resulting plant’s efficacy in its native environment is also altered.

**SD:** *Do you have any experience with tropical plants?*

**DT:** No, not really. But the issues are the same everywhere. My wife and I teach a study abroad course every year in Monteverde, Costa Rica. This year when we travelled there, we were greeted by a city planted over in impatiens. (Author’s note: *Impatiens wallerana* is native to East Africa).

**SD:** *Audiences often express frustration with Home Owners’ Associations. How can HOA rules be changed to be more native friendly?*

**DT:** The rules those groups try to enforce were made a long time ago by people who were ignorant of the facts, and rules made by people can also be changed by people. I have been able to see changes even in some non-native commercial growers who have attended my presentations. Right now I am trying to target the groups that I feel can be most influential in effecting change: those who garden for others, such as landscape architects.

**SD:** Thank you, Dr. Tallamy. We are looking forward to your keynote presentation at the FNPS Conference in May.

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### **The purpose of the Florida Native Plant Society**

is to conserve, preserve, and restore the native plants and native plant communities of Florida.

### **Official definition of native plant:**

For most purposes, the phrase Florida native plant refers to those species occurring within the state boundaries prior to European contact, according to the best available scientific and historical documentation. More specifically, it includes those species understood as indigenous, occurring in natural associations in habitats that existed prior to significant human impacts and alterations of the landscape.

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### **Editorial Content**

We welcome articles on native plant species and related conservation topics, as well as high-quality botanical illustrations and photographs. Contact the editor for guidelines, deadlines and other information.

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