10 Questions with Doug Tallamy

Editor's note: Douglas Tallamy, a professor of entomology at the University of Delaware, is one of the nation's leading experts on native plant gardening. He has authored several books, is a frequent public speaker and was featured in an article in The New York Times Magazine last summer. At the Hartford Flower Show last winter, he packed a double room with fans eager to hear his wisdom and anecdotes from his own mistakes and successes at his 10-acre property in southeastern Pennsylvania. In early July, he took time out of his busy schedule for a phone interview with Wrack Lines.

Left: Doug Tallamy. Photo: Rob Cardillo

Above: Some of the wildlife now found at Tallamy's property in Pennsylvania includes Eastern bluebirds, the rose maple moth, and the white blotched heterocampa moth, seen here its larval stage. Photos courtesy of Doug Tallamy

1. When I heard you speak at the Hartford Flower Show in February, you urged the audience to put more of their efforts into restoration of natural spaces over conservation. Would you talk more about that?

The conservation model for the last century was to conserve what was not destroyed. We still want to do that, but the model of conservation is not good enough. We keep developing and developing in a way that excludes natural ecosystems. We have to start thinking about ecosystem function as part of our landscapes. The objective should be to restore viable ecosystems in between the parks and preserves that are already protected. And in so many places, there is nothing left to conserve. But we can't afford to give up. Restoration has to be part of the future, not to replace conservation efforts but to add to them.

2. The notion of restoration can be difficult, because people are unclear what the standard should be. What baseline should they be working towards when they look to restore a natural space?

All ecosystems change over time, so there is no one point we're trying to restore to. The goal should be to increase the ecosystem function, the ecosystem production, and it's a continuum. You can always make it better. But what you have to do is start. Planting one tree is better than no tree. There are four ecosystem responsibilities we have for our yards. The first is to sequester carbon. The second is to support the watershed. The third is to support pollinators. And the fourth is to support a viable food web. A lawn does none of those things.

3. Where do you see the biggest potential for restoration projects?

We have to look at reducing our lawns. We've got 44 million acres of lawn in this country, about the size of the area of New England.

4. If you were a homeowner with a small yard, and wanted to start restoring its ecosystem function, how would you begin?

If I lived east of the Mississippi, I'd plant a tree appropriate for the area, an oak tree. A dwarf chinkapin oak is a good species for a small yard. It will attract caterpillars that are food for birds, make acorns that are food for other animals, help the watershed and help pollinators. I'd also look at how I can reduce the lawn, by putting in a pollinator garden with goldenrod, perennial sunflowers and other plants that will bloom from spring through fall. A bottlebrush buckeye is a good plant that attracts pollinators. If you can't find one at your local nursery, ask them to get it, and if they don't go somewhere else. Don't settle for something else. We're trying to push the nurseries to stock more native plants.

5. What was your own experience with restoring your yard like?

We're still working on it. We moved in in 2000 and I was surprised with how fast it went. We've turned 10 acres of land that was mowed for hay into a forest. Now I joke that I garden with a chainsaw because the trees I have planted have grown so much. I also have to keep after the invasives that keep moving in. Japanese stiltgrass has moved in and that's really tough to get rid of. Another thing that's really challenging is the overabundance of deer. I have to cage everything I plant so the deer don't eat it. The deer problem and the invasives problem are closely linked, because the deer only eat the natives.
But the rewards have been enormous. I've found 1,378 species of moths here, and that is food for 62 species of birds that have bred on our property. I've found gray tree frogs, and the wood frogs have moved back in. Restoration works. That's the reason I'm doing what I do.

6. What's the role of getting rid of invasives in the restoration process?

You can fight the invasives and start planting natives at the same time. Even if you have a thoroughly invaded area, you can get rid of the big bundles. Get rid of the woody ones like autumn olive, barberry and burning bush by sawing them off at the base and applying an oil-based herbicide at the base with a paintbrush. Some of the invasives like Japanese knotweed are really hard to control if you don't use herbicides, but you have to use them correctly. I think herbicides are like chemotherapy, and invasives are like tumors that are out of control and are killing the rest of the ecosystem.

7. Is there a book or website you would point people to as a guide for restoration projects?

Homegrownnationalpark.org is a website we started in 2020.

8. While the idea of planting natives and reducing lawns is catching on, where are you still seeing the most resistance and how can it be overcome?

It is catching on faster than I thought it would, but there is still the misconception that native plant gardening is messy. You can use native plants in a formal design. The people who insist on putting a messy meadow in their front yard don't help. We can use smaller lawn spaces as cues for care, to line pollinator beds. In general, we want people to plant more plants than the typical yard has. About 70% of plants in a yard should be native. The other 30% can be non-native, non-invasive species.

9. Are there particular institutions or sites you would point to as leaders in native landscaping or that have model restoration projects?

Mentor Marsh in Ohio had 811 acres of phragmites that was destroyed with herbicide and now it's a thriving freshwater marsh, with threatened plants now living there. All the major arboretums are recognizing the value of natives. And the New York and Brooklyn botanical gardens both have big native plant sections.

10. How do you keep from getting discouraged?

This is going to work because the public is buying into it. The enthusiasm at my talks just keeps growing. What they're excited about is being empowered to be part of the solution.

What's in our names?

The wrack line along the concrete seawall on Shore Road in Groton is dominated by eelgrass blades, indicating that eelgrass beds are located offshore. Photo: Judy Benson

What are wrack lines? The word wrack is a term for various kinds of seaweed, and wrack lines are the collections of organic matter (sea grass, shells, feathers, seaweed and other debris) that are deposited on shore by high tides. More generally, wrack lines are where the sea meets the land.

With our magazine *Wrack Lines*, we tell stories about the intersection of the land, sea and Connecticut Sea Grant. So what is Connecticut Sea Grant? One of 34 Sea Grant programs across the country, it helps residents make the most of our coastal resources and inland waterways. It addresses the challenges that come with living by the water or within the Long Island Sound watershed, in a state with 332 miles of shoreline and three major tidal rivers.

This NOAA-state partnership based at UConn's Avery Point campus works with aquaculture farmers, fishermen and seafood purveyors to help their businesses prosper. It funds research essential to understanding and managing our changing coastal and inland environments. It provides communities and local leaders with the information they need to make better land and shoreline decisions that result in more resilient communities and healthier watersheds. It educates students as well as teachers and adults of all ages about the marine environment.

Connected to experts and residents who live, work and recreate in the Sound and its watershed, it brings varied interests together around a common purpose of working for mutually beneficial solutions to problems. Small in staff but big in impact, Connecticut Sea Grant is like a pilot boat that navigates the way for large vessels toward safe harbors. Since 1988, Connecticut Sea Grant has supported "Science Serving the Connecticut Coast."