

Podcast Series: Holistic Nature of Us

Episode # 74 Meet: Doug Tallamy #2

<https://www.judithdreyer.com>

Hi I'm Judith Dreyer,

Thank you for joining me for this pod cast series "The Holistic Nature of Us".

I invite you to take a journey with me into a better understanding of the concepts behind our holistic nature and how that ties us directly to the natural world around us. My intention is to be your guide for this half hour as we begin seeing our world with fresh eyes, gaining more understanding, and learning how can connect the dots in practical ways that we are nature and nature is in us.

I feature a broad range of guests deeply concerned about the environmental issues of our time and more, authors and educators, practitioners and others whose passion for this earth and for all species helps us create sustainable bridges of understanding. These folks are innovators, action oriented, creating solutions in a variety of ways that honor us, and the planet's holistic nature. I am honored to share their stories, their projects, and their passion with all of you.

And today I'm delighted to welcome back Doug Tallamy. Many of you know him as the author of "Bringing Nature Home" and "The Living Landscape". He has a new book coming out called, "Nature's Best Hope" and I would love to have Doug talk us more about that.

So welcome Doug! It's such a pleasure to have you back here at the Holistic Nature of Us.

DOUG: Thank you Judith, great to be back.

JUDITH: All right, so why don't we just do a little review of your credentials and areas of interest and then we can talk about the book.

DOUG: All right. Well I'm an entomologist, University of Delaware. I am in my 40th year there, so I've been around. I study insect behavior and how

insects interact with plants and that has led me into a whole area of research looking at the way we treat our landscapes, the plants we put in our landscapes and how that impacts the insects that use the landscapes and all of the things that need those insects. And that turns out to be – that’s the big part of the story because insects, as E.O. Wilson puts it, are the little things that run the world. And if we run out of insects, the world will not run any more and that will not be good. So, we need to think about the relationship between insects and the plants we put in our landscapes to maintain them in peak form. We have not been doing that. We’ve not been doing that for the last century or so. We have been landscaping primarily from the perspective of aesthetics. We want to make pretty landscapes, use plants as decorations and they are decorations, but they also are critical components of our ecosystem. We have to think of ecosystem function, what those plants do in our ecosystems as well as what they look like. I could go on and on, but I don’t want to just ramble here.

JUDITH: No, no, no this is a good review for us because winter is here, but a lot of folks are thinking about their gardens and how they want to approach it. Any kind of encouragement to have folks look at their landscape differently is positive in my book. As you said, if we lose insects, which we are at an alarming rate, then it affects everything up the food chain and our world becomes sterile or a virtual world with no contact into nature, and that makes me sad.

DOUG: It’s going to make you more than sad because we wouldn’t survive in such a world. When Wilson talked about the loss of insects he said, first he focused on pollinators. If we lose our pollinators, we will lose 80-90% of all the plants on the planet. That will collapse the food webs that support the reptiles, amphibians, birds, mammals and humans. Our decomposers will be gone so there won’t be any nutrient recycling and his point was, humans will not survive those types of changes. Losing (them, insects) is not an option. It’s not just sad; it’s just not an option. We have to turn that around. You already see with the headlines three billion fewer birds than 40 years ago. Let me remind you: a million seconds is twelve days; a billion seconds is 31.7 years. So, losing a billion birds is a big deal. They’re already gone so you know it’s happening, and we can’t allow it to continue to happen.

JUDITH: I agree. I think one of the issues you and I discussed on our last podcast was how important our personal landscapes are in relationship to the preserved areas in our country. And we don’t realize today even how

important and valuable our personal landscapes are in helping with these problems. And so that's the kind of message, encouragement and stimulus I want to give my listeners: really look out their window and value what they have and what can they do to enhance it, even if it's three more plants. Why not? You know that type of approach.

DOUG: Let's revisit that. East of the Mississippi 86% of the U.S. is privately owned, and the entire country is 83%. Most of the land out there is private property, so somebody owns it. So, if we confine conservation to our parks and our preserves, it's not nearly enough. They are far too small and far too isolated from each other to preserve the ecosystem function we absolutely need. That makes private property the center of our future conservation efforts and that makes private landowners conservationists.

There's a land manager in England, whose name is escaping me right now, but he recently said that land ownership is more than a privilege, it's a responsibility. As far as we know all the life in the universe is right here on this thin film that we call the biosphere covering the earth. Roy Dennis is the guy's name. And the biosphere, if the earth was an egg, the biosphere is thinner than an eggshell, so it's this very small region. That's where all the life we know about and certainly all the life we're ever going to interact with exists. But we've carved that up into private land ownership but along with that ownership, says Roy, comes the responsibility, comes the responsibility of stewarding all the life in the universe, and I can't think of a more awesome responsibility than that.

So, look at your property and say this is an area of conservation. I am claiming that I own this, so therefore I have to keep the life around it in good shape and you have to do it for selfish reasons. If we design landscapes that degrade local ecosystems, those ecosystems will fail. We can't afford that. For our own good, we have to make, design landscapes that enhance our local ecosystems. Everything has to be vibrant.

JUDITH: All right, and we don't go into building new communities with that mindset at all. Everything is about aesthetics, so you see huge tracks of land being bulldozed down for the sake of 5,000 homes; but the diversity that's been eliminated is totally mind boggling, and we still don't have that awareness. I don't know why, because we're feeling the effects from some of our misuse of land and how can we change the picture?

DOUG: Because policy makers and developers are going what they've always done. It's, you know it's depressing. Capitalism is not designed to think about limits. It's based upon perpetual growth and of course the earth is not growing. Our population is growing. Our economy is growing but in a sustainable way our population and economy cannot grow faster than the earth is growing, and it's not growing. Limits are, have to be part of our future. It's not even in the discussion at this point but if it remains that way it's going to be very bleak.

Let's not talk about bleak though. Let's talk about solving this problem but using the plants that support the most life in our landscapes so that we can – you know it's a matter of just sharing where we live and where we work and where we play to a lesser extent where we farm. We've always had this notion that humans are here, and nature is some place else but there is no someplace else anymore. We need to share our spaces with nature right now and that means we have to use the plants that are natural systems co-evolved with them. There's nothing inherently bad about plants from China. They're very beautiful, or plants from South America. But they did not evolve here, which means they are not part of our critical ecosystem functions. They're very poor at supporting the insects that run the world. Which means the food webs that support our birds and everything else collapsed. It's not that we can't have some of those plants in our landscape, but the majority of our plants have to be the high performing native plants that support the life around us.

JUDITH: Can you give us some examples?

DOUG: Yes. In 84% of the country the top-performing tree is one of the oaks. For example around my house oaks support 557 species of caterpillars and caterpillars are the insects that are driving these food webs. They're supplying most of the fat and protein for breeding birds compared to ginkgo from China for example. It supports zero caterpillars. Zelcova from China supports zero caterpillars, Crepe Myrtle zero. So those plants are pretty but they're not contributing to the life around us.

JUDITH: They aren't. I just want to remind the listeners to, I found a great website called the www.treecalculator.com and if people want to know the value of their trees just go there. And there's actually an economic component to having that oak tree in your yard, the maple tree vs. the crepe myrtle and you can actually look at the value of a tree on your property from

economical as well as environmental. You know run off from water, how much does it absorb, etc., etc. So there are tools out there to help us become more aware of the value of the beautiful oak that supports so much wildlife.

DOUG: And there's another tool I'll mention. It's called Native Plant Finder on the National Wildlife Federation website. If you go there and you put in your zip code it will give you the top ranked woody and herbaceous plants, ranked in terms of their abilities to support these caterpillars I'm talking about. In terms of supporting food webs, you don't have to guess which plants are best because even if we confine ourselves to native plants there's huge variation in their ability to do what we want them to do. We want to pick the top performers and those change as you move around the country. So that's why this website is very valuable. No matter where you live you can find out what the most valuable plants are.

JUDITH: That's a great tool, thank you! And that's from the National Wildlife Federation, right?

DOUG: Right, right.

JUDITH: Okay so folks can look at that and we'll have a transcript anyway and we'll list the links to these particular areas as well.

Tell us how that segues into writing a book, "*Nature's Best Hope*".

DOUG: Well when I wrote "Bringing Nature Home" it was twelve years ago. We were just actually beginning to do some serious research on the impact of various plant choices on the life around us. In those twelve years we've gotten an awful lot of data. We've learned a lot. *Nature's Best Hope* is focusing on the urgency that has developed in those past twelve years. The message really is the same. What I start calling nature's best hope; you are nature's best hope. We, every one of us, are in charge of turning around all of the negative statistics that we hear every day. And you know I talk about studies and I talk about what's happened right at our property here. It demonstrates that we've learned that this really works, and it works quickly. It works well. You get positive feedback by using these powerful plants and I give demonstrations of that in the book. I'm hoping that "*Nature's Best Hope*" will be a source of motivation for people who might have been mildly interested by this is going to work but it's going to require buy in from a large segment of the population. I don't want to depress people. I want people to focus just on their own property and that makes it a much more

manageable task. Remove the invasive species that you might have planted and not known it. Things like burning bush and barberry and there are so many others. That would be a primary thing. Try to reduce the area you have in lawn. I talk about cutting it in half but any plants you add to your yard and reduce the area that's in lawn. You want to plant for pollinators. That means we have to put the plants that host the specialist pollinators. A lot of people want to see honeybees and bumble bees and that's great but those are very generalized pollinators. We have 4,000 species of native bees, many of which require the pollen of particular plant genera. For example, where I live there are thirteen species of native bees that cannot reproduce unless they have the pollen of goldenrod. In the Upper Mid West another thirteen require sunflowers. Many of them require native willows. Without that – putting those plants in our yard, we lose dozens and dozens of species of bees, which are attached to particular plants.

JUDITH: Can I ask you a question here? Are you saying a particular plant species that's really endangered right now because of our practices?

DOUG: Of disappearing, is that what you're saying?

JUDITH: Yes, yes.

DOUG: Sure, there are a number of plants that are thought to be on the endangered species list or are critically endangered because of loss of habitat. We've actually turned some of these around. Echinacea, believe it or not, one of the Echinacea's was down to just a few individuals in Kentucky I believe it was, but the area was saved. It was propagated and now it's doing quite well. But you can tell that story time and again around the country. A lot of these plants are small, and most people wouldn't even notice them.

JUDITH: Well my thought is we have a lot of Master Gardeners and people interested in gardening who listen to the show and so if there's a plant of two you could recommend for here in the Northeast to put in our landscape they may not have it, and that's always a great tip.

DOUG: Right. I would have to actually look up and tell you which ones are best.

JUDITH: Okay. I just thought you might have...

DOUG: I was thinking something like, what is the ceanothus around here?

JUDITH: For example, most people don't think about how valuable goldenrod is here in our neck of the woods and so they tend to pull it out. So I would recommend that you keep every bit of goldenrod that you can within reason, you know?

DOUG: Goldenrod is not endangered, of course there's a lot species of goldenrod.

JUDITH: Right.

DOUG: But it is the top performer in terms of making caterpillars. There are 110 species of caterpillars that use goldenrod and I've mentioned those specialist bees. And again, there are many species. Some of them are a lot more aggressive than others. Canada goldenrod is probably not one you want to plant in a limited space. But if you have a bigger area that you're trying to reclaim it's a very good plant for that. But there are many other species of goldenrod that behave themselves. They don't spread very quickly and they all could be a focus.

JUDITH: Cool, okay so that's – I always like to bring that awareness because people think, "oh goldenrod, you know it doesn't have any value." Yet in Europe, from what I understand, they actually grow it as a cash crop for the floral industry. But here in our country, if you go to Vermont, you can see goldenrod everywhere. Here it seems like it's not as valued. It's like a weed or a fallow field plant. It's just sort of there, you know?

DOUG: It is but it's a critically important one.

JUDITH: It is and it also has medicinal and healing properties too, which most people aren't aware of. It's so misunderstood from an allergy point of view, but it actually has a wound healing property to it. We've lost that kind of connection too, to the plant.

All right so tell me more about "Nature's Best". I know one thing I like about your first book is that you have great tables in there so I can look up a species of the trees or the oaks and see which ones I could choose for my yard. Do you have something similar to that in your new book?

DOUG: Not as much actually. We've got a lot of tables in "The Living Landscape", rather than repeat all the information we didn't include them again this time.

JUDITH: But the resources are there through your books and I think that's a valuable resource for our listeners.

DOUG: That's right.

JUDITH: Cool. So, tell me more about what's highlighted in the book.

DOUG: Well I talk about some of the people who actually shaped conservation in our country like Aldo Leopold and Edward O. Wilson. They both had a dream. Leopold had a dream about developing a land ethic that everybody would actually start to appreciate the value of land and take care of it. Wilson said we need to preserve ecosystem function on half of planet earth or it's going to collapse everywhere. Those are dreams and in both cases those dreams didn't include the places where we actually live. The idea is that we're going to save and preserve or improve the places that are still wild. But that's – preserving ecosystem function on half the planet when half the planet is already in agriculture and all of our infrastructure and us are in the other half, that's a tall order if we don't adopt a new approach to conservation. And that is the one where we're going to share all those spaces with the wildlife around us. If you look at all of the area that's in our airports, our golf courses and our roadsides and our power line rights of ways, places like that are suburban lots, even our urban lots and ex-urban lots, it adds up to 599 million acres which is bigger than twelve of our states combined, including Texas. It's a huge area of the country that right now is not thought of at all as areas of conservation. They all could be targets for conservation. They need to be targets of conservation without even touching agriculture. So that's what we talk about in the book.

JUDITH: That's an amazing statistic. Again, I don't think there's awareness for that in our everyday life. We've got macadam everywhere and buildings everywhere without any thought to preserving some trees or adding them back into the landscape, you know?

DOUG: You have no central authority that's looking at the big picture. So everybody works at their little local level thinking, "Well I can take down this little patch of woods and I can build a housing development here and it's not going to hurt anything" but when you do that millions of times over huge

spaces without any central regulation then it's all gone. And then people say, "we've got to preserve open space", well you've got to do that before you wreck it, you know?

JUDITH: Yeah that's true. I saw when malls were first being delivered, I'm sorry developed, for example in the New Jersey area and they took all the marshland that was "not totally ideal for building houses" and they put our malls there. I cannot even imagine the amount of destruction that happened to those marshland systems. And one thing I learned years ago is that it takes a lot of marshland, which can easily filter water. You need about seven miles of it, but we keep taking the best water filtering ecosystems and we remove them and then we put in storm drains.

DOUG: Those are our free water treatment plants. We put in storm drains that rushes that water to our rivers and right out into the ocean without any treatment at all. It's terrible watershed management. What manages our watersheds are plants. Whether they're on dry land or whether they're in aquatic systems, it's plants that holds that water on the land, allows it to infiltrate, cleans it. I was just reading, just before we got together today, about there's going to be an increased reliance on groundwater as the population continues to grow. Which means that ground water has to be able to recharge at a faster rate than it's recharging now; so again pavement, exactly the opposite thing that we need to do there. It is plants that allow our groundwater to recharge, assuming you get the rain to do that. These are long-term issues. One of the other big messages in my book is that what you do on your property doesn't just affect you, it affects everybody and that's a new thought. We have to be mindful of the impact of our plant choices and the amount of area that we have in lawn, which is you know just this side of paving it in terms of our watershed management one of the worst things you can do. We realize what I'm doing here is going to impact my neighbors. It's going to impact my entire township.

JUDITH: Yes, and that's a paradigm shift from where we've been as a culture.

DOUG: Very much so.

JUDITH: I think parts of Europe have got that mentality down. As we talked about before, you know, they were ten years ahead of us realizing that there was a problem with systemic pesticides and the bee population (they

observed) what was happening. Forget about what happens to us when we ingest it but at least recognized it with the honeybee. They took action ten years before we did. And it seems like we're always slow on the draw here to make a difference.

DOUG: We still have a frontier type of mentality. In the U.S. we think resources are unlimited because they more or less used to be. It wasn't the truth but look how fast we wiped out the buffalo and how fast we got to the Pacific Ocean and how fast we developed the entire country but there still is this idea that it was gigantic, and it was limitless. We can extract whatever we want for as long as we want. That is not even close to true anymore. You're right about where our culture has not shifted to realize that there are limits to everything now. And every time we add another person to this planet, those limits become more severe.

JUDITH: Yes and we have at least approached the concept of we are one in some of the consciousness fields such as spirituality, meditation, those kinds of holistic arms but we need to bring that very same mentality for our daily maybe spiritual practices, if that's the right way to put it, into practical action for taking care of this planet because as you said, what I do is going to affect everybody else.

DOUG: Right and it is the nature around us that takes care of us. So that becomes an even bigger issue when you realize that 82% of us live in cities now and are totally divorced from nature. They don't recognize that we're biting the hand that feeds us. We don't recognize our dependency on these living systems. So not just allowing them to collapse but forcing them to collapse is suicidal, it really is.

JUDITH: Yeah and that's the mind-set and the culture that I'm hoping to be a part of the solution, you know? To try and change the culture in the only way that I know how and putting myself out here and having folks like yourself here to try to raise that level of awareness, so we get it. We think in this country, again because we're so big, because we have had the mentality that life here is abundant that we can do just whatever we want and the answer is, no we can't. We have to grow up and we have to be mindful of our neighbor.

DOUG: Let me be positive here for a minute. I have been talking about this actively for the last ten years and I've got a perspective of how things have

changed over that decade and I do see a positive shift. There are a lot more people that are tuned in and interested in this. I have received very little backlash. I thought that this would be a harder sell than it has been because people are ready. They do recognize that what we're doing is not sustainable. They want to be part of the solution. They just don't know what to do. When I tell them, "hey, you know put a plant in your yard that helps wildlife", they get excited about that and they're doing it. They're doing it all over the country. I see a positive trend. The native plant sales across the country are skyrocketing. A lot of the nurseries can't keep up with it. There's room to be hopeful, reason to be hopeful and when we get not just thousands of people interested but millions, it's going to really take off.

JUDITH: Yeah, I agree with you. I think it's hard at the grassroots level to always understand the impact of what we do but we can now monitor certain trends better and hopefully really see some improvement and I think it's a grass level area of improvement. It's not going to come from the top down. It's got to come from the bottom up.

DOUG: Yeah, I wish we had a little help from the top down but...

JUDITH: Yeah, I hear you.

Doug we're going to have to part here and I would love to have you go over your three books again and where people can buy them, and your contact information that supports your work.

DOUG: Okay the first book was "Bringing Nature Home". It came out in November 2007. The second book is, "The Living Landscape" coauthored with Rick Darke that came out in 2014. My newest book is "Nature's Best Hope" coming out this February 4th. They're all with Timber Press. You can get all of them on Amazon but many; several of them are in top bookstores as well. They're on Kindle, so they're available in different forms. What else did you want me to say?

JUDITH: No that's great and now if folks have a question are you easily reachable through a website or not?

DOUG: Yeah I do have a website, www.bringingnaturehome.net and we're actually in the process of revamping that and trying to update it a little bit.

You know people send me e-mails all the time and I'll give it out but I'll enter if I can but I'm getting pretty swamped but it's Dtallamy@udel.edu

JUDITH: Great! Well I think that's good; those are good resources and if folks are savvy enough to look it up they can if they want to.

Well Doug all I can say is thank you for joining us at the Holistic Nature of Us.

DOUG: Well thank you for doing this. It is a great resource for everybody.

JUDITH: Thank you, I appreciate that. I know your advice and your talk is always inspiring to me and I'm glad I can spread the word, so to speak, about the work that you're doing.

This is Judith Dreyer. I'm the author of "At the Garden's Gate", book and blog. My book is available through my website www.judithdreyer.com as well as several distribution arms such as Amazon, Nook, Goodreads and more. I'd like to remind all of you again that a transcript is available for each podcast. And please like and share these podcasts. Let's support each other and get the word out.

And remember, **now** is the time for practical action and profound inner change so we value our world again.

Enjoy your day.