

Podcast Series: Holistic Nature of Us

Episode # 29: Meet Jane Seymour, Wildlife Biologist

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Hi I'm Judith Dreyer,

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

My intent is to take us, you and I, into a better understanding of the concepts behind our holistic nature and how that ties directly to the holistic nature of the world around us. How can we connect the dots in practical ways that we are nature and nature is in us?

I will be featuring authors and educators, practitioners and others whose passion for this earth helps us create bridges. We'll see what's trending, what's relevant to our world today, not just for land use, but to connect the dots between nature and ourselves. It's time for practical action and profound inner change so our natural world is valued once again.

Today I'm delighted to introduce you to Jane Seymour. Jane is a wildlife biologist and steward of the Belding Wildlife Management area here in Vernon Connecticut. The Belding Wildlife Management area was donated to the State of Connecticut by Maxwell Belding who then set-up a trust fund to help manage the habitats and provide environmental education. Jane received her bachelor's degree in Wildlife Conservation from the University of Massachusetts and a Masters Degree in Natural Resources from UCONN while researching habitat use of American Kestrels.

And today we're going to talk about the birds and the bees. Jane, welcome!

JANE: Thank you.

JUDITH: Tell us a little bit about your background and your connection with Belding and of course I'd love to hear about your love of the birds and sustainability.

JANE: Sure. Well my love of birds started when I was very, very young, as far back as I can remember. I ended up going to school at UMASS for a

degree in wildlife conservation and started working seasonally at the CT DEEP Wildlife Division doing some things like researching wetland birds and bats and I continued with my master's degree at UCONN where I studied American Kestrels. The American Kestrel is one of those birds whose population has been declining and as in most cases, the number one cause of population decline is loss of habitat. The number one threat to wildlife is loss of habitat. We need to think about what we can do to prevent this loss of habitat. At the Belding Wildlife Management area that's one of my responsibilities, to maintain a variety of habitats. One of the ways that we manage habitat is actually by cutting down trees. This may sound counterintuitive but consider this, before the European Settlers arrived in Connecticut natural disturbances occurred that would take out trees. Then the forest would regrow, and it created different stages of habitats. These natural disturbances take the form of: fires, flooding, storms. So, for example, beavers would move into an area that had a forested stream. And what do beavers do: they cut down trees. So the trees that they cut down they use for food and also to build dams. Once the dam is built that pond will flood and depending on where they set-up shop that pond can flood a very large area. The trees that are still standing, when they get flooded, they'll also die, and this can kill a lot more trees.

This is a great habitat. I like to think of beavers as the original wildlife managers. They're known as a keystone species. In other words, they play a major role in shaping the habitat for many other species. A beaver pond is a great habitat for different kinds of waterfowl, aquatic insects, fish, wading birds, redwing blackbirds, kingfishers, otters, and muskrats. Those dead trees that are standing are great perches for kingfishers, redwing blackbirds without the woodpeckers who will excavate holes in those. They're looking for insects that are feeding on those dead trees and they also make their nests inside those holes so that other birds like tree fowler, wood ducks they also use holes in dead trees to make their nests. So, what we might think of as something bad that happened because trees are dying, actually it turns into a lot of life for a lot of animals. But eventually when the beavers eat themselves out of house and home they have to move on and so the pond has been filling in with sediment, but that dam is going to start to leak. That sediment will become exposed. Well this is a different kind of habitat. It's a great habitat for things like spotted sandpipers, other birds that probe in the mud for insects, pretty soon sedges and grasses and moss flowers which will bloom in that sediment. So now it's what we think of as a beaver meadow. It's another great type of habitat. You find bluebirds here, bobolinks,

different kinds of bees, butterflies. Eventually that habitat will transition into a shrub land. Some of those animals are now going to start to disappear but other animals will move in. Redwing blackbirds, bobolinks, monarch butterflies, they can not live in this area when it finally grows up into forest. So what has happened to those animals that disappeared from this site once it was no longer a beaver meadow? Well they're going to go to another area that either recently became a beaver meadow or recently had a wildfire, though it's back in another area that has that early stage of habitat. These disturbances happen frequently enough so that these animals can move from place to place as the forest grew too tall for them to use. Now today when a wildfire breaks out, we put it out. We still have lots of beavers in CT, but we don't let them do the work that they're capable of. We break down the dams. We put in wire control structures. Because of this, those early stage habitats that are so important for certain species animals have been disappearing. And therefore, the animals that depend on those habitats have also been disappearing. The way that we deal with this now is we can cut down trees in suitable areas to bring back a lot of these species that have been disappearing.

JUDITH: Well that's interesting. But again, what you're saying to all of us, reminds us that one species, whether it's a tree or a bird, doesn't exist alone. It exists in an ecosystem and again what we perceive as destruction actually moves the cycle of life into a different stage and it actually supports a different level of species. This constant change in nature; nature doesn't stand still, and they appear that way because we can't see a tree grow in front of us like we do perhaps a rose. We make this assumption that nothing is happening, when in fact a lot is happening there in those habitats. What you do at Belden land that you're managing, by taking down some of the trees, you're managing the type of area that is going to support wildlife.

JANE: Right, so we actually have a couple of projects coming out where we'll be cutting down some trees and letting the forest regrow. In one area what we're doing is we're letting little oak seedlings grow. Oak seedlings, they can live in the shade of the forest for years, but they won't grow. Whatever sunlight and moisture and nutrients they can get they'll store in their roots until that time when the big trees are either cut down, blow-down or flooded or normally for an oak forest that would be a fire, that would give them a chance, those oak seedlings with those robust roots to now grow-up and become that shrubland stage, that young forest stage that some of these shoots depend on. And it's also the way to keep regenerating our oak

forests. And another cut that we're doing at Belding is going to be, taking out a lot of big Norway Spruce trees. Norway Spruce is, as you can tell by the name, is actually not native and most of our plant feeding insects, like caterpillars, have to have native plants to eat. If we have a forest that is filled with nonnative trees you're actually eliminating a lot of space where a lot of insects could be feeding and nearly all of our terrestrial birds in this area raise their young on insects. So that forest of nonnative trees translates into fewer birds because they don't have the food that would be feeding on native plants.

JUDITH: You're saying that the Norway Spruce, doesn't that tree grow pretty fast in the forest? I know we seem to have a lot of Norway Spruce around here in Eastern Connecticut. But what you're saying is, do our native bugs, insects and birds, do they have enough to eat from these trees or do those trees not support as much wildlife say as an oak tree does?

JANE: Right. Those trees can not support as much wildlife as an oak tree or even a native conifer tree.

JUDITH: Okay, so again, you and I both know about Doug Tallamy's work with "Bringing Nature Home". He has a great reference list in there for native trees and the number of wildlife that they support. And he reminds us over and over again that our birds are suffering because the insects have lost habitats.

JANE: Right.

JUDITH: So, in your meadow, tell me more about the meadow.

JANE: We have a variety of habitats at Belding. We have a wildflower meadow. We actually planted wildflower seeds in that meadow so what we're trying to do is have plants that are native to Connecticut or at least nearby to Connecticut. And we also want to have "wild type" plants. Some native plants are actually bred for certain characteristics. We call these "nativars". Sometimes when a nursery cultivates a native species for certain characteristics, it sometimes breeds out important characteristics that some species need. So, for example there's one type of coneflower that has been cultivated to be white. That coneflower does not even have pollen.

JUDITH: Wow.

JANE: Yes. and now it's useless for the bees that would be using it.

JUDITH: So that's not something that we're educated about in a nursery even. You know we see all these beautiful colors of the coneflower which fills in our landscape so nicely. Same thing we're going to have all of the butterflies (?) but you're saying that the white ones can not attract them. There's no pollen. I had no idea about that.

JANE: Yes, a certain type of the white one. There are several varieties of white coneflower. There's a certain one that does not have pollen. And I was looking for a groundcover up near the road and I buy heath aster. Heath aster is a native plant however, this was a cultivated one. It's called Snowflurry. Now late summer I have a lot of wild asters that are also blooming, and the bees are covering those wild asters. Meanwhile that cultivated heath aster does not have a single insect on it.

JUDITH: Oh my! I think that's very interesting. You know that gets us to the whole subject matter of invasive plants. Is a Norway Spruce considered invasive?

JANE: It's not considered invasive. Here's the thing with Norway spruce. Norway spruce is very shade tolerant. There are some spruces that are native to New England. They are not shade tolerant. So actually, when Max Belding planted conifer trees on the wildlife nature area, there were equal numbers of Norway spruce and White spruce. Well Norway Spruce, since it's shade tolerant, when they kept growing up and created a forest, that killed all of the near native white spruce. Now it's all Norway Spruce because they can tolerate the shade. Norway Spruce is easy enough to control, where as a lot of our invasive plants when you cut them down, they keep spreading.

JUDITH: How do you manage that? I know around here I see Japanese knotweed everywhere and bittersweet everywhere and what do you folks do over there in the meadow?

JANE: At first, we tried mowing repeatedly where the bittersweet was growing up in the meadow, but it just kept spreading. It spread and every year it was more and more, even though we were targeting bittersweet. We eventually had to spray the bittersweet in order to save all of the native wildflowers that were growing in that meadow. We go through and we spot spray, to make sure that we're only targeting those invasive plants. In the

past couple of years there is much less of the invasive plants and the wildflowers are still thriving.

JUDITH: Well it's a beautiful, beautiful meadow. At this time of year, you must have the goldenrod starting to bloom.

JANE: Yes, they are starting to bloom. The wild bergamot is just starting to go by. When we have that wild bergamot bloom we have so many bees, and butterflies, and hummingbird moths. We have the milkweed that's in there and of course we've been seeing Monarch butterflies. That milkweed is itself an entire community with Monarch caterpillars, milkweed bugs, milkweed beetles, milkweed tussock moths, milkweed aphids, milkweed weevils, ants that tend to the milkweed aphids and orange spotted ladybeetles that try to eat the milkweed aphids. It's a very interesting, very entertaining plant to watch and of course the bees love the flowers as well.

JUDITH: Hmm. It sounds like a condominium. You've got all these species that live on this one plant that often gets destroyed when we don't have sustainable management with our land use. And what I'm seeing, and what we're seeing here in Connecticut is a really big concern about that for management.

What else can you tell us about the birds and the bees in terms of what they need and how we as local landowners can be of some help?

JANE: There are things that we can do. So, any species needs its habitat. Every species has its own type of habitat that it needs and so, for example, the grassland or the shrubland, or the very young forest, or mature forest. For many of us we can think of our yards as one of those early stage habitats. We can think of our yard as a wildflower meadow. Any animal needs to have food, water, shelter and the other thing that we don't think of is space. For some animals we're not going to be able to help them because they need so much space. So, for example, it's going to be hard to save Grasshopper sparrows with yards because they need about 100 acres of grassland. Unless you have a 100-acre yard we need to save Grasshopper sparrows but protecting these large tracts of land that can be maintained with grass, natural grasslands. But in our yards, my yard is not very big, but I have Catbirds, Towhees, Goldfinch, Phoebes, Cardinals, Robins, Bluebirds, Woodpeckers. It's very entertaining. I have a whole bunch of bees and butterflies and other insects. We need to think about what type of food they

need and what type of shelter they need. For example, the Towhees and the Catbird that I mentioned, and even the Cardinals, they need nice thick shrubby habitats. These are birds that can be helped in your yard because they don't need a very large area of shrubby habitat. If you have tree seedlings, in my yard I tend to let the trees that are sprouting, I let them grow to a certain height and then I cut them down and then there are more tree seedlings that are going to grow, an ever-changing habitat. You can also have an area that's all wildflowers. Something to think about, people might look at goldenrod as a weed. As it turns out, goldenrod is a very important plant for Monarchs when they're migrating in the fall. It's also a very important plant for a number of native bees, as well as some of our caterpillars. Goldenrod has a beautiful color. I love the burst of yellow in my yard. It's just starting to bloom now. But the other thing that concerns people is hay fever. Goldenrod has been falsely accused of contributing to hay fever and that's because hay fever time you see goldenrod blooming. Goldenrod is yellow. It's bright yellow and that yellow attracts the insects. The pollen of goldenrod is also very heavy and sticky. It doesn't get airborne. And the pollen that causes hay fever is airborne pollen. There's no need to worry about goldenrod causing hay fever because it won't.

One of the other plants that blooms in the late summer are the wild asters. In my yard I have 3 or 4 different species of goldenrod that are all native and 3 or 4 different species of asters that are all native. The yard is filled with bees at that time of year. The other thing that grows wild, so all these things I just grew wild. These are things that you can purchase at Native Plant Nursery but some of these plants, chances are if you let an area of your lawn go wild, some of these plants will come in, certainly the goldenrods and the asters. If it's moist enough you might get jewelweed and one of the things that loves jewelweed is the hummingbird. And when that jewelweed is blooming I just sit out in my yard and I watch that hummingbird go from flower to flower sipping the nectar. And the bumblebees are also going in there sipping the nectar.

JUDITH: I'm just saying that with a meadow with these kinds of flowers, it's absolutely beautiful. We have a lot of goldenrod in our backyard. We also have Joe pye weed coming in which is purple, a pinky purple and then the asters of course spilling around on some of the edges. But you're right. If you just let some of your land go, especially if it's near a little bit more forested area, plants come in naturally. You don't have to go to a nursery to get them. They'll start coming in.

JANE: Right. And joe pye weed is one of the plants that will just grow, that just grew in my yard. Boneset is another one. I did also have monkey flower grow by itself in my yard, common evening primrose, that's another one. Common evening primrose is a host plant for a few different very spectacular sphinx moths as well as the common evening primrose moth. If it's growing in your yard and growing where you don't want it to be and you think you have too many, just pull it out and eat the leaves. You can eat the young leaves.

JUDITH: Yeah, so that's the other thing we forget about. That these meadows, even if we create something simple in a suburban backyard you know, it doesn't have to take up a lot of space. But if we plant some wild flowers, such as the varieties you just mentioned, we automatically contribute to habitat shelter food for our species and contribute to the overall health of our community, our nature world community, by doing these things and that's what we're missing, you know? We've taken away so much. I know there are reports here in Connecticut that we're seriously looking at what kind of land use we have left.

Jane, here in Connecticut do you monitor some of the bird populations?

JANE: Yes, the Wildlife Division here in Ct does monitor some of the declining bird populations, so mostly that's our grassland birds and our shrubland birds. So those are the birds that depend on those early stages of habitat, since we don't allow those natural disturbances any more, those are the ones that are most at risk now.

JUDITH: But what kind of birds, could you say that again?

JANE: Grassland birds, the ones that live in large grassland areas and shrubland birds. Our grassland birds that are becoming far less common are bobolink. Now there are areas that bobolink will use. They actually like hayfields. The problem is that when it's time for the first cutting, those chicks have not fledged yet. So even though there might be what looks like suitable habitat, it gets cut before the birds are able to raise their young. Bobolink, meadowlark, savannah sparrows, grasshopper sparrows these are all birds that are declining because we don't have those bigger grassland areas. Birds that need the shrublands that are declining are brown thrasher, yellow-breasted chat, golden winged warbler and even some of our other species that aren't listed as threatened or endangered, we have seen

population decline. These are things like the blooming warblers, field sparrows, the prairie warbler. These are all things that might not be threatened or endangered yet but if those trends continue, then we might find that eventually they would need to be listed if we don't stop the downward trend. One of the ways we can do that is these forest cuts for some of these birds, and also by providing these patches of habitat in your yard. One of the birds that is declining is the towhee. You would think: well something that has declined 90% in the past couple of decades, maybe that needs a very specific type of habitat or a very large area. Well it needs very young forest, shrubland or young forest. I had a towhee in my fairly small yard and it's because I've allowed the sumac to grow, the red osier dogwood to grow. I let the little birch trees grow up to a point and I let the blackberries, the raspberries grow. I have towhees, so this is a species that even though its population is only 10% of what it was, we can actually save this bird in our backyards or front yards. We forgot about our front yards. This also has habitat too.

JUDITH: I like what you said. Again, it reminds me of something that Doug Tallamy shared with me on another podcast and that was we don't see the decline. That's the hard part for homeowners. We say, "Oh my goodness I've got beautiful cardinals and finches and I've got sparrows and crows, whatever. But it's the species that are not as well known. We have no idea if they're declining or not, you know? By making our yards a little bit more, I want to say user friendly, we can start attracting a lot more variety of species.

JANE: Right. And it's also great locally to, to go out into this yard and to see all of this life that's happening right in front of me. I can actually go down, sit down anywhere in my yard and be entertained by all of this life that is going on. It's a really good feeling.

JUDITH: Well it is and what you've created personally besides what you're doing professionally is that you are contributing to diversity. You're contributing to sustainability. We want something that's going to be sustainable for future generations. That's how nature works. Nature works on sustaining itself and that's a model that we could learn much from.

Jane, any other tips? You know anything else you would suggest for my listeners?

JANE: Sure. There are more things that you can do. As we said, one thing that you can do is **let an area of your lawn grow wild** because you will need to deal with invasive plants but that's easy enough to do. You might have to dig out some bittersweet or some multiflora rose or mugwort. Get to know mugwort. That's our latest nastiest invasive native plant in Connecticut. But also fall will be coming in a couple of months and the trees will be losing their leaves. It's actually a good thing to leave those leaves there all winter. There's a campaign called "Leave the Leaves" because a lot of our moths are actually living under those leaves. That's their shelter. A lot of the moth cocoons are underneath that leaf layer and birds depend heavily on moth caterpillars to survive. There are also other insects, spiders. And some people aren't too keen on spiders, but we actually need spiders. All of these insects are living under that leaf litter. And another thing you can do is when your wildflowers, when the petals die back they may not be thought of as attractive but a lot of these wildflowers, native grasses are loaded with seed and so some of our birds are going to be coming through eating those seeds. And another thing about native plants, if you have native shrubs that produce berries; our native shrubs produce berries in the fall for birds and those berries have the right nutritional value for these birds where as the non-native shrubs don't have the right nutritional value at that time of year for our birds.

Another thing you can do is even after the seed heads have gone by, **leave those wildflower stalks** because some of our bees' nest inside those hollow stems. So that pye weed that you mentioned, bees will actually lay eggs. Certain kinds of native bees will lay eggs in those stems. But a lot of our native bees actually nest in the ground. They nest individually. We'll call them solitary nesters. They don't have a hive to defend so they're not aggressive. Most of our native bees hardly ever sting. Some aren't even capable of stinging. But some of our native bees actually need exposed ground. If you have a lawn area and it's hard to get the grass to grow. It just looks kind of sandy. That's actually great for a lot of our ground nesting native bees. So, **leaving the leaves**, leaving the stems in an area of your yard grown wild, these are all things that you can do to help wildlife and it won't even cost anything.

JUDITH: Right, it doesn't cost anything to do this. It just takes a little bit of time and effort for management, that's all. And wildflowers, what I love about them, is that they're drought resistant. They don't need water. They

don't need fertilizers and they can create a beauty in your landscape too depending on where they are in your yard.

JANE: Right, our native plants are well adapted to growing in our native soil.

JUDITH: That's true too.

JANE: They're beautiful and they perform important ecosystem services.

JUDITH: Hmm, I like that. So they're ecosystem managers, huh?

JANE: (Agrees)

JUDITH: This is wonderful. Well you gave us so much food for thought Jane on maintaining and trying to help our wildlife.

Again, we've lost, I think, 45% of our insects across the globe. We've lost a lot of topsoil so we have desert instead of grassland and meadowlands. I know here in Connecticut we're trying to look at it and so my listeners, you know, be in touch with your agricultural extension services. Find out what's going on with land management in your state and see which ones are more endangered. And I would think that the agricultural centers can say, if this bird is on the decline in your area they might offer some suggestions for your personal yard that will help contribute in some way.

JANE: You can actually go to the Belding website. If you Google Belding WMA, for wildlife management, you'll find the link. Or you can go to www.ct.gov/deep-belding We have a couple of slideshows on that website and one is habitat history. It goes further into detail about how habitats have changed over time. And there's another slideshow about native landscaping and that will give you some idea of plants of a certain species but at the end of that one there's a list of native plants that are available at nurseries in Connecticut.

JUDITH: Oh, that's wonderful! We'll make sure this gets included in the transcript once the pod cast is released so people can have something to refer to, especially so many beautiful birds and the types of habitats. I think that's really great information.

Is there anything else you'd like to add, or any other contact information you'd like to add?

JANE: If people want to learn more there are a couple of other great websites. There's the Xerces Society for invertebrate conservation so that's www.xerces.org and they talk about good native plants for different parts of the country and another one is actually www.yardmap.org, that talks about things that homeowners can do to help wildlife.

JUDITH: Oh that's great. Those are great resources. I appreciate that.

Alright Jane, well listen, thank you again.

JANE: Thank you Judith.

JUDITH: It's been very interesting, and I really appreciate your knowledge, your advice and your expertise is invaluable for what we can do for the birds and the bees, right?

JANE: Right. We can't live without the bees!

JUDITH: No we can't, we can't. That's for sure.

This is Judith Dreyer. I'm the author of "At the Garden's Gate", book and blog. And my book is available through my website which is www.judithdreyer.com as well as other distribution arms such as Amazon. I'd like to remind all of you to please like and share the pod cast. Let's get the word out and don't forget the written transcript will also be available.

I'd like to end with a quote from Paul Hawkin. He's an environmentalist and author who reminds us, "sustainability, ensuring the future life on earth is an infinite game, the endless expression on behalf of all.

Bye everyone and enjoy your day.