

Podcast Series: Holistic Nature of Us

Episode # 75: Meet: Judith Gail Reynolds

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Hi I'm Judith Dreyer,

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

I invite you to 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 so happy to welcome back Gail Reynolds. Gail is the UCONN Master Gardner, Middlesex County Coordinator. She has retired from a long career as an information security professional. Currently she's the state coordinator for the UCONN Master Gardner composting program. Gail has degrees from Yale and a Master of Forest Science degree from the Yale School of Forestry and Environmental Studies. In addition, she holds five information security certifications. She is a long-time natural resource and alumna at Yale volunteer including Chair of the Haddam Conservation Commission, Officer of the Haddam Land Trust, member of the Lower CT Land trust Exchange, Haddam plan of conservation and committee member, The Salmon River Committee member, CT Botanical Society board member, the executive board member of the Yale Science and Engineering Association. She is also a Yale student mentor and a Yale alumni interviewer of prospective undergraduate students.

I'm so grateful that you're back with us again Gail. We have lots to talk about this morning.

GAIL: Well thanks for having me and I appreciate your patience with my schedule to set time aside for me.

JUDITH: Oh, no problem. Gail you and I have talked previously about plant science, etc., and your background. What I'd like to do today is to start reminding my audience about your love of nature and how would you describe your partnership with nature?

GAIL: Well that's a really good question. I think that nature is there to be enjoyed and revered but not necessarily destroyed. Because even enjoyment too much of like, you know, too many people walking in a certain place or people digging up plants, those things can actually be destructive.

JUDITH: So that's interesting. You don't hear people say, enjoy nature too much. I know that would mean something different to each of us but I'm glad that you clarified that. So, tell us more.

GAIL: That's you know, I am talking extemporaneously. I don't have these remarks prepared so thanks for asking for question. I don't mean like you can never enjoy nature too much. But in the sense that what you can provide for us, and I'm preparing content now for the 2020 UCONN Master Gardner Program. I'm doing the invasives, natives content and I'm going through just giving a high level introduction to ecosystem services, which are things that ecosystems provide for people like cleaning our water and our air and providing pollinators and things that people rely on. We have to be careful with that. But we don't want to go overboard, meaning we don't want to have people digging up plants or destroying natural areas, or taking their automated – maybe they don't like to walk and they take their automated, their ATVs into the woods and that's not a great thing from my perspective. I think it destroys too many things on the ground. So, have I clarified that distinction?

JUDITH: Yes, you have. So, we're talking about – we can break this down into two issues: one, getting out in nature serves a great purpose. It reminds us that we're part of a bigger picture. It gives us a chance to breathe fresh air. It gives us a chance to be in the aesthetics of nature however we like. Some people like to hike. Some people go canoeing, etc. And so we know from various studies that it's better for all of us to be in nature more often

and get away from the florescent lighting, etc. But you bring up another point and the other point is, what do we do when we are out in nature? Do we just randomly sit on a clump of grass and not be mindful of what we're sitting on? Do we take stones and just toss them in and do something different to the landscape without mindfulness? I think that's what you're getting at.

GAIL: Yes, yes. Thank you. I appreciate your mindfulness there and interpreting my scattered, my extemporaneous remarks.

JUDITH: Well that's okay.

GAIL: I like when you talked about lighting. Before this call began, I had just listened to a short podcast on light pollution, which many people don't know about. Because if you've never been in a place that's not developed and the right people around and there aren't many lights, if you've never seen that dark sky, you've missed out on something incredible.

JUDITH: Well, we're seduced by our technology right now and so these are very good reminders.

Gail, you have such extensive knowledge of the plant community, not only credentialed but experience wise, and I know one of your favorite areas to research and to investigate and to teach about are bogs and I'd love you to spend some time with us this morning telling us about bogs and how you came to love them.

GAIL: Well thank you very much for that introduction to bogs. Bogs are so unique. They're little pockets, at least in Southern New England they're little pockets where perhaps at the end of the last ice age a piece of ice just was in a depression and melted and that's the water source. There's usually no water in and water seeps out but it's a very austere landscape. Plants can be very acidic and filled with peat moss and other mosses. And just the things about bogs, they're um, you know when you get farther north like into say Northern Maine and into Canada you get much more extensive bogs that go on for miles and miles, areas that are just moss covered for eons. You have the aggregation of all that moss and organic matter, and it doesn't go anywhere. It just stays. But here in Southern New England, you know up into Central New England, we have bogs that again, they tend to be smaller. They tend to be not forested, although there are trees in them, and it's kind of interesting that in Southern New England we have along the coast we

have Atlantic White Cedar bogs. Atlantic White Cedar is in the genus *Chamaecyparis* and there aren't many of these left. Unfortunately, a lot of them were filled in or just ignored but there are some nice ones. There's a really nice one near me. I'm in Haddam and the town south of us in Chester there's Cedar Lake and south of that it's called the cedar swamp it's American Coastal White Cedar and it's really hard to get in there. Maybe that's why it hasn't been destroyed, but I've walked in on the ice in the winter. And there are also Black Spruce bogs and we don't have much native spruce in Connecticut, but Black Spruce tends to be really scraggly and nothing like the spruce that we think of. You know, tall like red spruce or white spruce in Northern New England, the black spruce. Also the Tamarack or Larch tend to grow in boggy areas. Those are distinctive because that's one of the few conifers that turns yellow in the fall and loses its needles. So that's sort of the tree layer but it starts, so you have a lot of other things you know from the poor drainage, from the sick nature of bogs sometimes you can have some open water in the center but around that, or if it's an older bog and there's enough peat you can have a floating mat, which means you can walk on it but it feels like you're walking on one of those old water beds.

JUDITH: Oh yeah, that's interesting. When you talk about bogs like this you talk about peat, I automatically think about the big bags of peat moss in our nurseries, is that where they come from?

GAIL: Yes. So, every time you purchase and open a bag of peat moss it's been mined from some bog and you know bogs are a finite resource. So maybe people might want to rethink excessive use of peat moss.

JUDITH: And what is your best application of peat in the home garden?

GAIL: Well you know I'm not a big user of it so I don't have one personally, but people use it as a, just to add in as a soil additive or some people use it to mulch. It does hold water, so people use it for the water holding capabilities, but you can use regular compost for that.

JUDITH: Okay, that's what I was getting at because there are other ways to substitute for that. I was introduced last year by Craig Floyd down in Mystic with his beautiful giving garden to seaweed. And seaweed is great in the garden. It's usually free. It's on the side of the shore. You don't need that much. You can grab a bucketful and bring it home.

GAIL: Yes, seaweed that definitely is true. I grew up right on the Sound so I'm kind of used to seaweed being around, even though I haven't lived there in years and years but you're right, seaweed, some people are even starting to farm it now. Although I don't have enough information to talk intelligently about that, but I know that that is happening.

JUDITH: Interesting.

GAIL: But back to bogs, you have, starting at the moss at the bottom on the ground level, if you look closely you find little tiny plants. You know that's where you find cranberries. Cranberries grow in bogs.

JUDITH: Oh, so that ties that whole plant in with their ecosystem, interesting.

GAIL: Yes, although cranberries don't have to grow in bogs. I have some growing just in my garden. They like that fine but naturally that's where you find cranberries, in bogs. And commercial operations generally rather than having cranberry plants are low to the ground, rather than having them, you know having people pick them, they usually flood them, and the cranberries will float to the surface and that's how they harvest them. They have big rakes and they pull them but there are also other small plants low to the ground. There's another plant similar to cranberry, like snowberry and there's also like a wintergreen, not the one we find in the forest, a different wintergreen. But if you really explore the ground you can find those. And cranberries usually flower in mid June. They're really sweet little flowers. And then what you also find, other specialized plants that you'll find in bogs, you'll find wild orchids and orchids are just so delicate. There are in bogs and boggy areas round me. There is the marsh pink, there is one orchid and then there's the rose pogonia also. In bogs, they're prevalent. You'll never find them upland but they're just beautiful, just so delicate along the floor and they usually flower around Father's Day.

JUDITH: Oh, that's interesting. Would you include the Lady Slipper in here?

GAIL: No, they grow upland. They grow in rich woods but they are orchids. Another pretty common orchid in our forest is the Goddess May Plantain (?) that's another forest orchid. They usually flower like mid August. You're probably seen them in the woods. They have, their basal leaves are variegated, they're blue and white, I mean green and white. (I think I'm

staring at a blue sweatshirt and blue got into my head.) Those are upland orchids, but these are more bog orchids. There are others that are rarer, but these are the more common ones. They usually flower around Father's Day so I just remember on Father's Day I try to find a bog to walk in. A lot of bogs have limited access just because they're so delicate. I know there's one near me in Killingworth that's owned by the Killingworth Land Conservation Trust and I've brought classes there and I've brought the CT Botanical Society there and I just always contact them and ask if it's okay if I bring them there.

JUDITH: How interesting. That would be nice to maybe get more information about them if people would like to see it, obviously with care because they sound like they're precious in our landscape at this point in time.

So have bogs diminished, specifically here in CT over time?

GAIL: They have because wetlands in general have diminished. Whether it's the coastal salt marshes or you're more upland, inland wetlands because to a lot of people who like to develop things, they're not considered to be productive where as they're just a different kind of ecosystem that is, I think, very necessary.

But let me just go back just one type of plant that I'd like to, also on the floor of bogs, that I'd like to talk about before we go on.

JUDITH: Sure.

GAIL: And those are insectivorous plants, plants that rely on insects for protein. We do have those in CT. Pitcher plants and sundews and also bladderwort. Some people know Venus fly traps and those are cousins of pitcher plants, but the sundews are teeny and they're along, you know they're on the very bottom. They grow on the moss. But you can see those have like a little head that has almost like teeth, even though it's not teeth, it's just modified plant parts, and they can open up when the insect comes near by and then they just close on it and they digest it. A pitcher plant is a little bigger and they have tubes that has things that insects find it irresistible. But the insect goes in and then it can't come out. And bladderworts they'd be on more if you have a little open water area, because they actually have submerged roots and they're different kinds. Like there's horn bladderwort and there's regular bladderwort. Most of them have

yellow flowers but others, they're in the genus *Utricularia*. Some of them are purple and they're just really cool if you look, try to peer down inside them.

And so that's why, unless you created a bog like habitat on your property, if you want these plants in your own garden area, you could create boggy situations. Orchids though, they're almost impossible though to get to live elsewhere but you can purchase and get these other plants to live if you create your own little bog. And my coordinator from New London Paul Armand, he has extensive gardens and he has created boggy, a bog that's really cool. I haven't. I just don't have the patience to do that. I'd rather enjoy them out in nature. And that's just on the bottom of the bog. There also are just really cool Ericaceous plants and that's from the family Ericaceae which are sort of like evergreen plants with leathery leaves, like our Mountain Laurel. That's in that family. But you have cousins of the Mountain Laurel that grow in bogs. You have sheep laurel and you also have bog laurel and it looks similar. You can tell they're related by (the fact that) they're a lot smaller than Mountain Laurels. And you also have other plants. Like you have Grandora. You have Leatherleaf and you have Labrador tea. Like they're not in every bog but these are bog plants. They're all Ericaceous. They have these leathery leaves. The botanical term for this kind of leaf is Coriaceous. I always loved that word. But you have those, and they just have really cool flowers. If you think of all kinds of variations of Mountain Laurel flowers and it's just stuff that you don't find in more upland areas.

JUDITH: Now we have areas around here that are very wet. So if you have say a yard that has these wet spots in it and the streams go underneath and kind of keep everything wet, those would be conditions to create a bog, wouldn't they?

GAIL: They might be, yeah. You know I haven't done one myself so I can't talk intelligently about that but there are like on You Tube and throughout literature horticulturalists and other nature lovers who will tell you how to create a bog. You know, where to get the moss, where to get the plants and the conditions. Again, it's really poor, it's acidic and they're aren't a lot of nutrients there and that's what has led those plants to evolve to become insectivorous because that's where they get their protein.

JUDITH: Yeah. Cool. I love how you tie the information together for us in terms of the value and how things develop because I don't think we always investigate deeply enough in terms of why these ecosystems are really important to us and they're important to the landscape because of what they've discovered for themselves. I mean you're talking thousands and thousands of years that these particular systems have evolved and they kind of know what works and what doesn't work.

GAIL: Yeah, I mean you know there are always evolutionary dead ends, but they don't last. But these are quaint in a way and you also, like you'll find blue flag iris which grows in other wet places too but it's just a really pretty plant. And there are others, like the good loosestrifes like Swamp candles because usually when you hear loosestrife you think of purple loosestrife, bad plant. You know it takes over wetland areas but there are some native loosestrifes that are really nice. The swamp candles which are yellow flowers, but you can tell they're a loosestrife just by their leaf arrangements. Shrubs around the edges that's where you find your male berries that looks like it should be a Dogwood or something but it's not, when you look at the leaves. And sometimes over time things change and if the bog gets too filled in, it could become a red maple swamp but there are really nice red maple swamps.

JUDITH: That would take obviously lots of time for that to happen.

GAIL: Yes, but one of the big saviors of bogs has been the commercial cranberry operations because that keeps them available.

You know I'm a New England Patriots season ticket holder and so we go up to Foxboro and believe it or not there is a bog, like there's a path right behind the stadium there is a cranberry bog there, hard to see. I don't know if you've ever been up there.

JUDITH: No.

GAIL: It's a really filled up place. You have a huge stadium and you have Patriot Place which is just hotels and restaurants and all that and then if you follow the bog path you can hear the stadium. You can walk right there from the parking lots and there's a cranberry bog and you know it isn't a cranberry bog but there is bog vegetation there. My husband and I visited it once. Usually we don't because it's such a long drive to get up there. It's

about 2 hours each way but we don't usually leave enough time for that, but we did once and oh it was gorgeous!

JUDITH: How about that, right next to a baseball stadium, or football stadium sorry.

GAIL: That's okay, that's okay. And I remember about 40 years ago when I worked for the State of Connecticut, they had these lists of natural areas and I remember driving down Queen Street in Southington, which is like one of the big main drags in Southington. Right along the main street there was this little bog, a little black spruce bog tucked away. I have no idea if it's still there, but it was just surrounded by all this development. There it was with the black spruce and all of the bog plants. They're just, if you learn about plants there's just such a deep appreciation for plants like you say that have specialized for their environment. Whether it's the orchids, the insectivorous plants or the cranberries because cranberries are also Ericaceous. They're also in the health family so they're a cousin of Mountain Laurel as well.

JUDITH: Well, that was fascinating. So many plants that exist there, ones we don't often pay attention to.

I think what I'd like to remind our listeners about, is that **they can check their own state and find out if there are any preserved bogs to go visit**, if they're interested in seeing the plants. That's number one and number two there's plenty of You Tube videos out there if they want to **create something in their own backyard, especially if they have wetter areas** and number three to **be mindful as we go out walking into our local environments and pay attention**. If we find cranberries than maybe perhaps look around more, investigate more to see if that's a bog like area in their neighborhood and then lastly, you know Killingworth here in Connecticut has some kind of a land trust so folks can look into that and I'll make sure that that's posted on the website and in the transcript of our talk today.

So, Gail before we leave, do you have three tips at all to share or anything else to share about bogs?

GAIL: Well I'd like to say **support your local land trust** because I know just about every town in CT because we're so town oriented and not that regionalized. Most towns have at least one land trust. Some have even

more than that. But a lot of land trusts want to preserve these unique habitats so check with your land trust and local land trusts to see if maybe there is a bog in your area or some wetland that might have this type of vegetation. Support you Land Trust! And you know again I'd like to say enjoy nature but don't dig it up.

JUDITH: Okay.

GAIL: I collect seeds because I try to **propagate things**. You know I'm not a professional propagator, so I have so/so success, but I like to go look at the wild types of things but don't dig things up, especially orchids because they're not going to grow in your garden. Even Lady Slippers which are more upland they have very specific mycorrhizal relationships with fungi in the soil and if you just dig one up, you're not going to have that relationship so it's going to die. And the Native Plant Trust which used to be New England Wildflower Society, they have managed to propagate the yellow Lady Slippers which are beautiful but they charge like \$85 for one plant because they're so hard to grow and I'm not buying one because I know that it will die. And then again, I might just want to say, you might have even said it before, but think, try to **find alternatives to peat moss**.

JUDITH: Yeah that's a good reminder and we'll highlight that in the transcript too.

Thank you, Gail. Those are great tips and you gave us a better understanding of the diversity in a bog. It's really fascinating, and I know I have many listeners who are in the Master Gardner field or they're gardeners and they're always looking for information on plants so this will be very worthwhile.

GAIL: You know I grow sheep laurel. I grew Labrador tea for a while, but it got too much shade and it died out, but you can find these plants in nurseries. Propagators have done them. I'd just like to thank you again for letting me talk about these things that I love, and I hope that people can sense how excited I am about these and maybe some of that will rub off.

JUDITH: Yeah, we never know where any of this is going to go. We're planting seeds and I mean the pun as we talk and that's the point of The Holistic Nature of Us.

So Gail I'd like to say thank you. It's been a pleasure having you again and I love your wealth of knowledge about the plant world. It's always so inspiring.

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 that a transcript is available for each podcast. And please like and share these podcasts. Let's get the word out and support each other.

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

Enjoy your day.