

PLANT PEOPLE Season Two Episode Nine 'Let's Botanize' Transcript

JENNIFER BERNSTEIN NARRATION: If you took biology in high school, you probably learned quite a bit about plant life - and chances are good that you realized pretty quickly how complicated these life forms can be.

In today's episode, I'm joined by Jacob Suissa and Ben Goulet-Scott, the co-founders of Let's Botanize, an organization dedicated to taking complex information about botany -- which is the study of plants -- and making it digestible for everyone.

And they know their stuff. Jacob is an assistant professor at the University of Tennessee Knoxville in the Department of Ecology and Evolutionary Biology. Ben works at Harvard's Ecology Field Station, Harvard Forest, where he runs education programs for college students.

And so, to borrow a phrase from today's guests: Let's Botanize!

JENNIFER BERNSTEIN: So, maybe just to get us started...you're both botanists. So, could you tell us what inspired your passion for botany?

BEN GOULET-SCOTT: You should start, Jacob. It's different for me.

JACOB SUISSA: Yeah, we have very different paths. So, for me I was sort of always romping around the woods of Maryland...is where I grew up. Kind of a swampy ecosystem, ripping off oak leaves and crushing acorns, but my passion for plants never really materialized until my first year of my undergrad degree at the University of Vermont when I took a course and it was a home and garden horticulture class.

And it sounds quite nerdy, but I think what really clicked with me was the process of photosynthesis. Like, it couldn't be a nerdier statement. But the fact that plants are some of the heaviest organisms on earth and they build their bodies entirely through breathing in the air, right?

And then from there I was fortunate enough to go to Costa Rica to study plant diversity. And then I fell in love with biodiversity that the Costa Rican flora offers. And then the rest is history.

JENNIFER: How about you, Ben?

BEN: Similar to Jacob, I grew up just loving the outdoors and nature in general.

And what I really loved was biodiversity. And for me, field guides were my way of really experiencing that. I have a big stack of field guides, mostly birds, fish, that sort of stuff. Now a lot of plant guides as well and insects. And so in college I studied evolutionary biology. I realized, okay, if I love biodiversity, that's the thing to study. And I worked on fruit flies actually, which are very cool if you're into genetics and evolution and otherwise maybe just kind of annoying. And then when I was going to grad school I knew I wanted to do field work. And so when I started trying to think and learn about, okay, which labs get to do field work, I quickly learned that, hey, one great feature of plants is that they don't move. And also, like, permitting is usually a lot easier for plants.

They're just way easier to work with in the field. And so I started looking at plant labs for, like, practical reasons, and then totally fell in love with them. Once I got to grad school, I literally had to take like intro botany when I got to grad school but fell totally in love.

And now it's hard for me to imagine a time when I wasn't just obsessed with plants.

JENNIFER: So, the two of you together have built this wonderful platform called “Let's Botanize,” which is now a non-profit organization. So, what inspired you to do that and to try to make botany more accessible?

JACOB: Ben's sort of story segues nicely into the origin of “Let's Botanize.” So, Ben and I, we did our Ph.Ds. together at Harvard and our lab was based at the Arnold Arboretum which is Harvard's sort of tree museum, so to speak, right? And we would go out on the weekends every once in a while and botanize, right? Sort of go out in nature and look at and appreciate plants. Kind of like bird watching, right? But for plants.

And this really started heavily during the pandemic when we couldn't really go into the laboratory. And it was sort of an opportunity for us to spend time together and to geek out over the things we loved, right? Which were plants.

And then from there it sort of evolved and developed quite heavily.

BEN: Yeah, I'll just add, as we walked around, we were just naturally doing this thing where we were telling stories back and forth about what we were seeing. And at some point we thought, “Hey, what if we shared these with more people than just the two of us?”

I just started bringing my camera along and we started filming these stories that we were coming upon as we walked through the woods or through a meadow or honestly on the sidewalk. We've gotten a lot better at it over time.

Watching the first videos back is, well, the very first one we ever filmed was completely unusable because we didn't have a mic and you can't hear what Jacob is saying. So, we learned quickly that we had to buy a mic but it was just something we had already been doing together one on one and translated pretty well, we think to a bigger audience.

Using social media.

JACOB: If I could add to that as well we realized that we perhaps have a broader mission, right?

Which is through sharing the hobby of botanizing, we think that we can help combat the climate and biodiversity crises because as we say, sort of a care for plants is a care for the planet, right? Plants make up over 82 percent of biomass, right? Living stuff on earth. And if you can learn about them a little bit more and appreciate them a little bit more maybe we can become better stewards of them and thus the planet.

JENNIFER: I love that it grew out of your passion for just sharing what you care about, which is plants and that, you're bringing people into that. And I agree that starting to care about biodiversity and the climate crisis, it begins with paying attention to what's around us in the world, and the world of plants.

So, what do you think are some of the biggest misconceptions that people have about botany, to the extent that they know what botany is at all?

BEN: That's a good question. So, one that comes to mind to me is there are so many plants and IDing them is so hard and the idea that botany is all about just figuring out the Latin name of what you're looking at. This is an extremely difficult task, right? There are more different species of grass than birds. One of our points as we talk about the hobby of botanizing is you don't have to focus on taxonomy. You don't have to focus on figuring out the specific name of something.

It's a fun challenge because it is quite challenging. But it doesn't have to be the whole point of botany or the hobby. There's ways to appreciate plants without knowing any Latin names of what you're looking at.

JACOB: In addition, some of these other ideas that we think about is this inherent bias that we have right? This bias that's been called “plant awareness disparity” by our friend and colleague Kate Parsley.

And sometimes it's been historically called “plant blindness,” but we're sort of shifting away from that term. But it's, right, it's this idea that plants are the background to life, right? The sort of green stage that animals and primarily humans play on, right? So it's a challenge, right? And that's sort of an internal bias that I think a lot of people have is sort of seeing plants as the background and not really understanding that they are the main players, a lot of the times they write, they make up they are the primary components of nearly every ecosystem.

JENNIFER: Yeah, it's a funny dichotomy because on the one hand you're saying that people sort of see everything as a green wash and it's all the same and also they're overwhelmed by how much diversity there is. There needs to be a kind of happy medium somewhere on that spectrum.

So, you know, as scientists, what are the challenges that you face in translating the research that's emerging in the field into engaging kind of easy-to-understand content for a lay audience?

BEN: So one of the things that we really do try to do is take stories from the primary literature and ideas that have been really fleshed out by plant biologists and translate them and we sort of mean that literally because one of the challenges is the vocabulary.

How do we put things and ideas into terms that are more accessible, already familiar to folks? One thing that helps, I will say, is that on social media, videos tend to be limited to around 90 seconds. And that limits our ambition of how much we can try to stick into one video.

JACOB: *[Video Clip “If you’ve ever been hanging out on the beach in South Florida, you may have seen this beautiful tree with large round leaves and interesting fruits.”]*

BEN: And it really forces us to focus on trying to concisely make one or two points. And if that's all we can do, then we really have to be good editors, you know, writers.

JACOB: *[Video clip: “Today, we’re talking about sea grapes. Let’s Botanize.”]*

JACOB: I think the other issue is that plants are so fundamentally different from us as humans that deduction and intuition is usually not the proper approach to sort of understanding them. Right? So I think to a hindrance in sort of understanding how they work, how they live, how they function.

We have these three teaching philosophies, if you will with “Let's Botanize,” right? So one is, as Ben was saying, translate the primary literature and actually translating is important because you are learning a new language with a lot of this kind of stuff, especially with the scientific information.

The second is modeling unbridled excitement. Sort of showing people how excited you can be over some of these, seemingly mundane observations, right? But once you understand them a little bit more, they're definitely not mundane and are very excited. And the third is welcoming the audience.

So really, it's sort of encapsulated in even our name, right? Let's Botanize. Let's go botanize. We're bringing people into the action with us.

BEN: Yeah, I think that that last point, welcoming the audience in, really what we want to do is make botanizing as unintimidating as possible, as accessible as possible. The truth is that it's extremely accessible because plants are so ubiquitous, you're surrounded by them all the time, and all it takes to be doing botanizing is paying attention.

And so anyone can do that anytime, anywhere, pretty much.

JENNIFER: Right, yeah, I think the enthusiasm is a big piece of it because there is just something captivating about observing someone who is passionate about something. It makes you curious about it because we're all, I think, drawn to that in other people. We're not born with a set of passions or interests.

They grow in us over time based on the experiences that we have. So, if you can create that spark for people, then you can make more botanists in the lay sense, which the world definitely needs.

BEN: Jacob won't say this about himself, but I can say it about Jacob. He's amazing at it. I mean, he's a great classroom teacher, and he has many years of experience doing that, but he's also just genuinely an excitable person, and you know, his enthusiasm is very, very, very easy to rub off on other people and very transparent on camera, so makes my job easier.

JACOB: I appreciate that, Ben. Yeah, I mean, I think it's important, right? It's not just about conveying the facts. It's sort of how you convey the facts, right? I think there's a lot of literature out there in this sort of education research space that sort of conveys, it's not just the fact that you're telling someone something, but how you're telling them.

That's really important.

JENNIFER: So you started to touch on this when you were talking about translating the research, but how do you choose topics and what do you think makes a plant story compelling?

BEN: So, a couple of things about our process. One, we don't write scripts out ahead of time. So we get to a place, we find a plant that we're excited about. And we improvise the script together in conversation. That helps, I think, with the enthusiasm piece, because we will just go out in a place and make a video about the thing that really got us excited that we just stumbled upon, right? So we don't have to fake like, wow, this is a really cool thing we just found. We do, we have tried to sort of like, analyze our own intuition for what topics we get excited about and we've come up with two different categories that we really get attracted to. So, one we call treasure hunting. These are the really exceptional rare special things.

“Wow. This is an orchid that is really unusual and only blooms for one day and we found the flower today.” I think it's sort of obvious why those are fun and exciting and rare. It's things people don't get to see that often. So, if we get to share it with someone, that's awesome. But those are also less frequent to...

JENNIFER: They're rare. Yeah.

BEN: Exactly by definition. And so the other category that we really maybe spend more time in we call “window cleaning.” And this is the idea that these are common things that are maybe not sort of shiny, we say. They're not obviously exciting and attractive and special, but if we can just clean the window a little for you and get you to see it more clearly or see it in a new way we think we can hopefully tell a compelling and fun story about it.

And then the great thing about these subjects is these are things you're more likely to encounter all the time. They're not rare and exceptional. They're things like dandelion fruits. What is that structure? Where does it come from? How does it develop? So, window cleaning and treasure hunting.

Those are our two sort of modes that we sit in.

JENNIFER: So, as you endeavor to make plants more accessible to this lay audience, have you faced any kind of skepticism from the scientific community when you're bringing botany to social media? Folks that feel like it's not complete enough of a story or you're leaving important things out.

JACOB: Well, the first thing that comes to my mind is the idea that social media is an immature playground, right? And we think that there's a lot of stuff on social media that is not productive, right, for your growth and development. But in our mind, social media is really just a sort of a megaphone. And what we're trying to do is sort of reach as many people as possible.

And the more you educate, the sort of more impact you have, right? And so social media is really a perfect place to do that.

But that really is just depends on the type of content that you put on there, right? I mean, even TikTok recently, with all the controversies around it, has added a STEM, right: science, technology, engineering, and math tab on their videos. So, you can literally just click on that tab and only watch, you know, STEM-type videos.

BEN: And, I will say, so, we started just by making stuff for social media, and we formed a nonprofit as we sort of grew an audience and felt the responsibility to take on a greater mission with our education work. And one of the board members for our nonprofit is an education researcher.

That's what she does professionally, you know, as an academic. And she's helping us to think about, are there ways we could measure the impact that we can have doing this education work on social media. It's a little tricky. It's, it's kind of uncharted territory still, but it's exciting for us.

JENNIFER: Yeah, that's great. You know, you mentioned impact. sort of along those lines was there a particular moment that you can remember where you realize that like this thing's catching on I think we're going to have some reach. What was that tipping point for you?

JACOB: I don't know if there was a specific moment...

BEN: I think there was.

JACOB: Oh, you think? Oh, yes, I do. Okay, I remember. Yeah, go ahead.

BEN: You know, one of our internal rules is “do not try to solve the algorithm.” Don't try to game it, don't pretend that we can understand what...

JENNIFER: Well, it keeps changing...

BEN: They're changing it all the time. It's a black box. Who does...

JACOB: Trends are ephemeral.

BEN: Yeah, so I remember we made a video about mycoheterotrophy. This is the idea of some plants being parasites, not doing their own photosynthesis, but tapping into fungal networks on tree roots and sort of stealing their carbon that they need to live.

Most people are not sure. Is that a fungus? Is that a plant? And so we made a video on this very cool subject.

And I remember doing the edit and thinking, man, I really messed up the color and being kind of bummed out..

JACOB: *[Video Clip “Most plants are what we call autotrophs meaning they produce their own sugar through photosynthesis...”]*

BEN: I sent it to Jacob. “Hey, should we still post this? I don't know about how it looks.” And we decided, “Yeah, let's just post it.” And we posted it and then it got a million views and we had never had a video do that well. And it was like, “Okay, you know, maybe our own internal metrics of what is or isn't great and, you know, interesting are completely useless.

And we just put stuff out there that yeah. That we feel good about and like we've told a good story and don't try to predict what's gonna happen.

JACOB: I think another thing, and this is more a slow trickle. I think over time the comments that we get on a lot of these videos and photo posts are very rewarding. People saying things like, Wow, I didn't know that. Or, this is a new thing. Or, I can't wait to see that when I go outside next.

The comments are really what demonstrate, I think a lot of the impact, the individual shifting their perspective.

JENNIFER: Is there another of your sort of favorite videos that you could describe what it's like to go out and forage. I know you use the word “forage,” which is not the same as we often hear it, you know, foraging for mushrooms or things that you can eat, you use that more generally, but can you describe one video that you particularly love?

JACOB: I particularly love this video that we made about a phenomenon called “marcescence,” which is something in the temperate region and many people in the tropics as well have seen, which is a deciduous tree holding on to its dead leaves throughout the winter. So, oaks do this a lot. Young beeches do this a lot. And, so we made a video about the seemingly mundane idea, phenomenon that some trees do that people don't even pay attention to. And in my head, I was like, “Oh, this is, I think this topic's fascinating. No, one's going to care about this.”

And it did, so well. I can't remember the exact metrics, but hundreds of thousands of views, amazing comments. People loved the term.

JENNIFER: Why do they hold on to their leaves?

JACOB: There's many different hypotheses. Some have to do with like dropping leaves in the, in the early spring so that you sort of get all of those nutrients like right by your base of your tree. And some other, trying to suck out as many nutrients as you can from the leaf before that drops off.

So, there's a lot of hypotheses. And many different species across the plant tree of life do it. And there's likely many different adaptive explanations for why “marcescence” has evolved many times.

BEN: Yeah, I'll just say that “marcescence” video is a perfect example of “window cleaning.” Like dead leaves sticking on a tree in the winter. It doesn't get much more common or dull than that, but once you start to ask yourself, “Wait, why would a tree do that? Why would a plant ever do that?”

And not just one plant, but many different species. It's an interesting mystery to try to think through.

JENNIFER: Oh, there's so much to learn about plants. That is what I think is so exciting about it.

And, it's a great example of just revealing that plants are using strategies, obviously. That's why they've been so successful. And so there's very little that happens, that isn't for some sort of reason.

And the investigation into all of those reasons is still wide open, even though there's been obviously many years of excellent research, so still lots to do.

JENNIFER NARRATION: You've heard that Jacob and Ben strategize when they create their videos, too. The choice to share two key facts per plant is meant to keep things approachable, AND inspire you to get outside and explore for yourself. When we return -- what it really means to “botanize”, followed by something to get YOU closer to nature.

[BREAK]

JENNIFER NARRATION: This is Plant People from NYBG. I'm Jennifer Bernstein. I've been speaking with Jacob Suissa and Ben Goulet-Scott of “Let's Botanize” about inspiring non-botanists to get out and explore.

JENNIFER: I think you've touched on this a little bit, but I want to hear a little bit more about why it is that botanizing as a hobby, as a skill that people can take up no matter whether they have the professional training or not is such a useful way of understanding plants.

JACOB: Yeah, At the end of the day, it's just about getting close and observing these organisms that are fundamentally different from us, right? And so, the hobby of botanizing, gets you outside, gets you looking at plants. And when you look at something, right?

If we can sort of clean those windows or show you those rare shiny things, right? if you can understand something a little bit more, we think that you can care for it a little bit more. Our bigger goal, the reason why we think botanizing is so important in the broader sense is plants are everywhere. They make up 82% of terrestrial biomass. Right? They're the main components of every single ecosystem. Like without plants, life as we know it, on land here on earth could not exist. Our homes and our clothes and the food we eat and the oxygen we breathe.

And so, if you can learn to appreciate plants and care for them, we think that that helps you become a better steward of this planet, which we do think will eventually help combat the climate and biodiversity crises.

It might sound crazy initially when you're like, “Oh, what is looking at a you know a dandelion flower? How's that gonna help save the planet? How's that gonna you know--” but it, but it's through this logical series of ideas that that we keep coming back to, right?

And it's a slower process. It's not changing laws. It's not boots on the ground conservation, but it's education, which is, which is a powerful tool as we all know.

JENNIFER: Yeah, so how can listeners get started on that journey? How can they start their process of learning how to identify, understand, observe the plants around them?

BEN: Great question. So, maybe two things. One is we're on social media trying to show people how to love plant and be curious about them. But there's a lot of other awesome people, not just us doing very similar things and doing great work. So there is this great plant science sort of community evolving on social media.

And the other is that we are working on a book to try to answer that question. So if you think you might be interested in botanizing, what should you do? So, the idea of the book is it's a set of 101 prompts that are just little exercises that you can do to sort of prime you to go outside and observe plants.

So, it's totally approachable for someone who's never botanized before, to give you these little exercises that are running through Jacob and my head all the time when we're outside. But also, if you already are a botanist, it's like a little exercise book of, you know, “Here's your workout for the day. Don't forget to look at buds. It's been a long time since you looked at bark.”

Or, you know, so...hopefully this book, which should come out in around spring 2026, will be this sort of object that can either get people into the hobby for the first time or help them further their journey into botanizing.

JENNIFER: That's terrific. I love that it allows people to sort of follow their curiosity and have embodied experiences that connect to the content that you're sharing with them. So, speaking of the book, I hear you have a challenge for our listeners to do today to connect with nature...

JACOB: Yeah, that's right. We...so the book is, you know, a set of prompts that readers can engage with. And one prompt that we like is the following. It's, “Can you see the veins in the petal of a flower?” And so this is to, you know,

help readers get a little close, as with many of the other prompts, with plants, and in particular, look at the veins of a petal because there are veins in there and we sort of go on right after that prompt to talk about the evolutionary origins of petals, right?

They share an ancestry with leaves. They were sort of evolutionarily modified leaves as we put it. And so understanding this sort of vein architecture and petals helps you understand a little bit about where they came from.

JENNIFER: Well, you don't have to ask me twice to look at flowers. So, I think our audience will like that.

So, when people go out and they start looking at plants, how can they do that in a way that's responsible and to ensure that they're not inadvertently causing harm to local ecosystems?

BEN: So the way that Jacob and I botanize, we don't need to pick or pull anything. One nice thing about plants is that they're modular, and so, in most cases, for most plants, picking a leaf off of a tree is not going to do any serious harm to it, but still, the way that we botanize just requires that you get up close and look at something.

JACOB: Yeah, especially in the spring, you have all these spring ephemerals in the temperate region that are growing super close to the forest floor. We'll be on our stomachs with our hand lenses, right? Just kind of looking at them really close up. And so, I think, an important thing is not to trample the plants.

Don't just sort of rip things out of the ground to look at them, get close to them. But yeah, as Ben said, we often are not destroying much.

JENNIFER: Yeah, we have snowdrops in right now at the Garden and sometimes I'll see visitors with these very long...it looks like a golf club, but at the end there's a little mirror so that they can see, you know, the inside of the flower. It's a niche thing.

BEN: We need to get one of those.

JENNIFER: A wonderful thing about working at a garden is that you encounter all of the different lovers of different plant groups and they're wonderful.

So you're both research scientists. I'm interested to hear about work that you're engaged in right now that's particularly exciting for you and also how you balance these different roles that you have as science communicators and researchers.

JACOB: So, I study ferns. I'm a fern evolutionary biologist.

JENNIFER: You must know my colleague, Dr. Emily Sessa.

JACOB: I do know Emily Sessa very well.

JENNIFER: The fern community is tight, I understand.

JACOB: Yes, we are. And Emily is fantastic. And just to plug, she published a great book on ferns of this region.

I bring it with me every time I go botanizing. But yeah, so, so, so right now I'm working on a couple of projects. One is looking at the relationship between ferns and insects. So, often we think of ferns as sort of the wallflower of the biological world because they don't have flowers. They don't have fruits. And so they're not interacting, of course, with things. But that's very far from the truth. They interact with organisms all the time, and in particular I'm studying their relationship with ants as their bodyguards, their defenders which is a really interesting interaction that happens a lot in flowering plants, but we found recently that it also happens in ferns.

I guess to answer the second part of your question, which is how do we straddle this time right between our full time jobs and “Let's Botanize?” And it's just that “Let's Botanize” is a labor of love.

And we work in the evenings and on weekends and over breaks with our academic jobs. We have standing, Ben and I have standing meetings Mondays and Thursdays from 8 p.m. until the wee hours of the night whenever we finish.

BEN: Yeah, so for myself, I work at Harvard's Ecology Research Station, Harvard Forest now, and in my day to day, I'm around plant research all the time, but I don't actually do plant research anymore myself. I run our education programs for college students, so my chances to do research now are actually educational research.

When I get a chance to be working with data sets or working on a manuscript, it's about how to measure the impacts of in person research experiences for

undergraduates which is something that I'm very passionate about and very fortunate that I get to work on in my day job. And yeah, we work in the evenings.

I have a toddler, so our meetings start after bedtime ends.

JENNIFER: Yeah. Well, thank you for the labor of love that is “Let's Botanize.” I know that so many people enjoy it, including me. I'm a fan, so I appreciate you being on Plant People today.

JENNIFER NARRATION: You can become an explorer or even a homegrown botanist by simply taking a look. As Ben and Jacob shared, it's as easy as observing a plant up close and appreciating it.

Grab your camera and take a photo of the veins on a petal of any flower. Share your image on Instagram and tag @NYBG for a chance to win a souvenir as thanks for taking part. We can't wait to see your pictures.

And if you enjoyed that activity, you'll love Ben and Jacob's upcoming book, "Let's Botanize: 101 Ways to Connect with Plants." It's filled with prompts crafted to open your eyes and deepen your relationship with nature, and it drops February 24, 2026. Find the link to learn more and preorder in our show notes at NYBG.org.

In our next episode we speak with Dr. Mauricio Diazgranados about how to protect endangered ecosystems and biodiversity without leaving behind the people who also live there.

Thanks for listening. If you're a plant person and want to give us a boost, please rate us on whatever podcast app you use, like iHeart, Spotify, or Apple Podcasts.

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Music from APM Music.

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