

SUMMERSODE: Balmy Vibes & Seasonal Factoids

with various Ologists

Ologies Podcast

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Oh heeey, it's the mesh patio chair that leaves your thighs looking like snakeskin, hmm, Alie Ward, back with a sticky, languid episode of *Ologies* I had to make. I tried to not make this one many times, I said, "Nah, it's too much work. Will anyone even care?" But I wanted it. I wanted this episode, I needed a collage of factoids, kind of like a vision board for the summer that's to come.

Also, what is summer? Well, years ago, I made a minisode about it called Aestaology, I think, and we learned then that the Earth's axis is a little wonky, it's a little tilted, so as we cruise around the sun, one hemisphere gets more direct sunlight, and the other gets less for a bit, and the result is three months of us wearing jorts. And here, in the Northern hemisphere where my actual rump is wearing jorts, summer just started. Southern hemisphere folks, feel free to listen if you have some winter blues going on, maybe you want to transport yourself to the boiling, roiling conditions of America at the moment.

Also included are some updates from just what's happening in my very small corner of the world, familywise, which I save for the secrets at the end, because maybe only some of you care. My family is going through some stuff, I'm going through some stuff, it's at the end of the episode.

Also, if you care about the podcast, thank you for telling your friends or for joining Patreon for a dollar or more a month, Patreon.com/Ologies... and rating and leaving reviews. I read all of them and you have left so many sweet ones this week, but I did want to address a few that made me laugh... a little bit at you, and I'm sorry, I just want to help. So, Annoyed728 left a one-star review that said:

Really annoying that episodes will skip back.

And Annoyed728, we have covered this before, but apparently it just bears repeating, that is not how the episodes are edited, that is not actually the episodes. That is your spotty cell service or your bad Wi-Fi. Download the whole episode before you listen, problem solved. While you're on the good Wi-Fi, feel free to edit your review and say, "Thanks for the hot tip, Internet Dad." Also, I'd like to help a reviewer by the name of Tired of Foul-Mouths, who objected to our occasional swear words and wrote:

Rated E and science-based should be safe to listen to, even with children.

And umm, Tired of Foul-Mouths, number one, we do have free, G-rated *Smologies* episodes, available right in the main podcast feed, they're also up at AlieWard.com/Smologies. We make them just for that reason. We also offer full, free, bleeped episodes at AlieWard.com/OlogiesExtras. Both are linked in the show notes for you and your children. But I just want to say, Tired of Foul-Mouths, that the rated E that you mentioned, that means Explicit. The E does not stand for Educational or Everyone. The red E literally means don't listen with children. So, not knowing this might be why you're so tired of foul-mouths, Tired of Foul-Mouths. So, I hope that helps, are we good? Okay.

Now the other literal 99% of you who leave wonderful reviews, and you understand that science is weird and hilarious and that grown-ups deserve the juicy parts, I appreciate every review, it keeps this show in the top science podcasts. Okay, great talks. Yes, sometimes I swear when I feel emotionally moved to because this is free entertainment, I try to just show up as exactly the person

I am for you all. On that note, *Ologies*, I feel, is at its best when I'm making episodes that make me a little nauseated with joy, like this one, to just help us get excited about and have context for all these summer wonders around us.

So, kick back for a compilation of, snorkeling tips, shark statistics, firefly safaris, constitutional law questions, the science of make-outs, appreciation for hornets, horniness for foraging, cabins, campfires, crevice-checking, jellyfish tips, bear safety, the importance of handwritten memories, and actual scientific advice on how to find joy amid difficult conditions. Your summer vibe has arrived. So, let's start with an ologist who studies the season themselves, a researcher at the Page Museum at the La Brea Tar Pits in Los Angeles, Phenologist, Dr. Libby Elwood.

Alie: Okay, so first off, summer, why is it?

[Clip from Phenology]

Libby: During the summer, a lot of things have settled down, so once the migratory birds have arrived, for example, they're there to breed. And so, they do their thing all summer, they're hanging out and then they will start their southern migration usually in the fall, so that's another thing that we have a lookout for. Also, that would be when the leaves start to change color, and leaves fall, then it's pretty quiet for the winter.

Alie: What is a rundown of the function of each season? We tend to think of summer as this feeding season and then kind of a feast and a famine through winter. Does that do anything for plants, to reset their cycles? Or does it do anything for animals?

Libby: Oh yeah. Right, so birds will often have, at least in the northern hemisphere, their breeding season is in the summer. So, during the winter, they are fattening up, they're getting ready, they come back north, and they're establishing their territories, building their nests, and then making a family. So, there are those kinds of things with certain animals.

And then for plants too, plants have a chilling requirement in the northern hemisphere, so they'll need to actually be dormant for a certain amount of time to then recognize that it's getting warmer again and to know that they can start producing flowers and leaves and that spring is here. But if they don't get that chilling requirement, if we were to have a really warm winter for example and it doesn't get cold enough for them to meet their chilling requirement, then their spring phenology can be thrown off.

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Alie: So, this time is the time when your underboobs weep with sweat and your hormones say, "Meet me at my nest," and your brain dreams of bouncing out of town like, "Byeeee!" And maybe you're one of the lucky few who can dip your body in some water or nap by a splashing sea and I asked marine biologist, policy expert, and Oceanology guest Dr. Ayana Elizabeth Johnson about how to enjoy the ocean.

[Clip from Oceanology]

Alie: Do you listen to any ocean apps on your phone to chill out?

Ayana: Like ocean sounds?

Alie: Yeah.

Ayana: No. *[ocean sounds play in background]* I put ear plugs in and just zone all the way out.

Alie: I wasn't sure if someone who studies the ocean and has dedicated their life to essentially saving the ocean would be like, "I don't want to hear an app because it's just a bad simulation," or...

Ayana: Yeah, I'm a pretty light sleeper, so I like complete silence [*record scratch, ocean sounds stop*] and I think, yeah, as someone who is, like, 95% vegan, and who never eats fake meat, it's maybe the same thing, right? [*Alie laughs*] I'm not going to go have a soy hot dog, and I'm not going to listen to fake ocean sounds.

Alie: Do you do a lot of diving? Did you have to do a lot of diving?

Ayana: I used to yeah. For my PhD research, I did three or four hundred dives.

Alie: Do you like being underwater? I know some people are like, "It's so beautiful, it's like I'm flying." Other people are like, "It's so big, it's terrifying."

Ayana: It's pretty cool. Some people think that if you don't scuba dive, you can't experience the ocean fully and I totally disagree with that. I think scuba diving is nice because I can't hold my breath for an hour.

Alie: Yeah, neither can I.

Ayana: I only learned to dive when I realized that I needed to as a tool for my scientific research. And it's pretty neat! To be able to be underwater long enough to really watch the behavior of an octopus, or a parrotfish, or whatever it is, is an amazing opportunity.

But I think snorkeling is underrated. I think more people should get super into snorkeling, because you can see so much just by diving down and taking a look and being in shallow water, so I hate the thought that people think, "If you're not scuba diving then why bother?" Because there's so much you can learn about the sea, and just enjoy the spectacular creatures from the surface, or from a little shallow dive down with your mask on.

Alie: You've just got to learn that trick where you blow the water out when you surface, right?

Ayana: Yeah, yeah.

Alie: Okay. Is that hard to master?

Ayana: No, you can totally do it, anyone can do it. Or sometimes when I don't have enough air left in my lungs when I come up to the surface for water reason, I just take the mouthpiece out and breathe air normally. [*both laugh*]

Alie: I guess you could do that too.

Ayana: There are definitely ways that anyone can figure this out.

[*Back to Summersode*]

Alie: Can't get to an ocean? Can you just pick up a dusty shell from your aunt's guest bathroom? Let's ask actually shell expert, Biominerology episode guest and human delight, Rob Ulrich.

[*Clip from Biominerology*]

Alie: Okay, a lot of people, a lot of people wanted to know, can you hear the ocean in shells? What makes them sound like the ocean? Elizabeth Ross says: I heard the sound is created by blood moving in our own ears, being echoed by the shell. Do people ask this of you when you tell them you study shells?

Rob: [*giggles*] I feel like nobody ever asks me anything. [*Alie laughs*] I would love more questions about shells, all the time. And I really want to say yes because it sounds very magical, but the answer is no, unfortunately. And it's also not necessarily you hearing your own blood either. It's just that shells... and this is the reason why they've also been used for instruments in the past, is that shells are so efficient and effective at amplifying sound that whenever you put your ear up to the shell, it's really just amplifying the sound of the ambient noise and air moving around.

Aside: So, flimflam busted. The noise that you hear from shells has a name. It's called seashell resonance, but that ambient amplification would also work with, like, an empty Starbucks cup. So, I'm sorry to have just broken your heart, curious, land mermaids including Christa Charter, Rachel Moore, Elizabeth Ross, Kate Rumpy, Kelly Windsor, Teagan Andrews, Megan Younce, Olivia Meyer, and DeLene Oppelt.

[*Back to Summersode*]

Alie: Somewhere between the turquoise shimmer of the Caribbean and a nautical display at a Michael's craft store, there is a place and it's called Florida. But it may hurt you, like a real son of a beach. Why?

[*Another clip from Biominerology*]

Alie: Vince Alasha asks: Why are Florida beaches covered in shells? So many cuts in my feet!!!! And then there's four exclamation points.

Rob: Yeah, it's actually the shape of Florida and the surrounding bits of land or islands that causes that to happen. A lot of the islands run parallel to Florida, so they're aligned with the water currents running around Florida itself. However, beaches like Sanibel... I think... it starts with an 'S', it's actually perpendicular and so it sort of catches all the shells that come out of that current, and that's why it has so many more shells than a lot of other beaches.

Alie: Oh okay, so do you think if you were to find a shell from some place in Florida and there were a lot of them, it would be okay to take home? Or is it still like, "Nnh, leave them on the beach."?

Rob: [*laughs*] I think to be safe, leave them on the beach, but I'm sure if you take one, it's fine. Definitely not if they're alive, but if they're fully formed and together then you probably should leave them.

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Alie: Not a beach person, I get it. If you happen to have found a small bucket of money buried in your backyard and you can use it for a quick summer break, maybe you want to head straight for the hills and get cozy around the smell of some melted pine sap, or you can just stare at some hashtags and you can sketch up your own shack. Let's ask, Minnesota-based architect and real-life Cabinologist, guest Dale Mulfinger.

[*Clip from Cabinology*]

Alie: How do you feel that social media culture or Instagram culture has maybe changed the way we appreciate these remote buildings, or structures, or retreats?

Dale: Well, one big difference is that we now can rent structures everywhere and part of that is made accessible through social media so we can now not just have, say, our own cabin, but we can rent everybody and anybody else's cabin almost anywhere in the world. And I think that's really changed. And then we can immediately share that experience with an

innumerable number of people. So, you know, those are probably the big things that have changed through the media as we understand it today.

Alie: Are you okay with that, with cabin sharing?

Dale: Sure, sure. Absolutely. In fact, I think one of the phenomena around cabins is that we feel much more comfortable sharing our cabin with others than we do our home. We're less likely to offer up our home as a place for strangers to stay in. Whereas cabins, traditionally, were places where we weren't accommodating strangers, but we were accommodating Uncle Harry and Cousin Beth and the colleague we work with. So, we've often shared our cabin with diverse people.

Alie: Do you have any memories of being in a cabin that are some of your favorites?

Dale: Well, I think snow falling and sitting quietly reading a book with a fire crackling and my wife's good cooking smells in the background is probably one of my best experiences. Or looking out the window and seeing the five or six deer that are eating the corn I just set out there. Those are some of the best.

And I think then, I've had an opportunity to gather larger family groups together, not necessarily in my cabin, because my cabin is a little bit too small for that, but through the borrowing of friends' cabins or renting a friend's cabin, I've been able to gather 16 of my wife's family members together, and that made for a special occasion.

Aside: Okay, quick aside, I made you a list of things you can do in a cabin this summer:

- Play Dominos
- Read a book
- Gossip
- Ask older people important questions about their lives
- Carve spoons
- Learn to needlepoint
- Roast marshmallows
- Write a list of all the things you want to do in your life
- Make your friends all tell stories about how they met each other
- Enjoy a poem
- Bake a pie
- Sip coffee out of one of those metal, enamel mugs they sell in camping stores
- Write a short story
- Learn to fry a fish
- Nap
- Throw your phone into the lake
- Quit your job
- Disappear from the internet
- Live off the land, like that Walden Thoreau guy, hope you don't get arrested
- Wish on a shooting star
- I also like playing Rummikub.

Okay. Now, let's say you want a taste of that cabin life, but maybe a little closer. You could fashion a Garbin, which sounds like a portmanteau for garbage and bin but it's actually a cabin you fashion in the rafters above a garage, a Garbin. Now, what about a straight-up cabin in your backyard, is that okay?

Dale: I've certainly recorded cabins that occur in the backyard of somebody's home. They might think of that cabin as a mancave to escape to, or her place that she can retreat to for writing, we call that a scriptorium.

Alie: Oh! I've heard it called a she-shed. *[laughs]*

Dale: Yes, a she-shed. I think that's not uncommon, and I've recorded a few of those in books I've done and in articles I've written.

Alie: Yeah, I guess a cabin is kind of like our childhood version of a fort but realized and with plumbing.

Dale: Yes. And you know, some not with plumbing, the outhouse whatever nearby. It might have some modicum of plumbing in and some way to heat it up, which may be our little fort when we were kids didn't have either of those.

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Alie: So, who fortified? Maybe you. Perhaps this summer, you have a patch of backyard, or you have a generous friend with one and can make a tiny respite out of some recycled pallet wood and just get away from the world. Maybe you can listen to podcasts while you do; heyyy.

Now, if you're somewhere it's safe to do so, you could bring some cabin vibes to your own patio with a little tiny campfire. If you missed the Pyrotechnology episode with Yale Pyrotechnology Lab researcher and pyrotechnologist, Ellery Frahm, we cover how our species interacts with those flickering dancing flames.

[Clip from Pyrotechnology]

Alie: Have researchers looked into, like, oxytocin levels at all while you're looking at a campfire? Is there something that is comforting, innately to us, even though fire is dangerous?

Ellery: I don't know about that specifically, that's a really good question. But I'd agree there is that satisfaction of it as well. Is that something inherently biological and controlled by hormones, is a really good question. Or if it's something I'm essentially conditioned to do. Would a baby who hasn't been raised around campfires find this comforting or terrifying?

Aside: Okay, so if you would like some science to explain why you love campfires, I will point you to the 2014 paper, "Hearth and campfire influences on arteriole blood pressure: defraying the costs of the social brain through fireside relaxation," which explains:

Fires involve flickering light, crackling sounds, warmth, and a distinctive smell. For early humans, fire likely extended the day, provided heat, helped with hunting, warded off predators and insects, illuminated dark places, and facilitated cooking. Campfires also may have provided social nexus and relaxation effects that could have enhanced prosocial behavior.

So, this study took 226 subjects and measured their blood pressure. And then they randomly put some people in front of a control image, while others got video of a campfire with the sound down, and other subjects got the full pop and crackle treatment too. So, what happened? Researchers found consistent blood pressure decreases in the fire with sound folks. Particularly, with a longer duration of gazing at the video. And on my website, I have linked a YouTube that offers 12 hours of free yule log action. So, you can relax without worrying about a forest fire, or having your hair smell like beef jerky.

Alie: What about the importance of cooking food and avoiding parasites? At some point, did we learn how to boil water? How has fire contributed to our actual living longer?

Ellery: Yeah, that's a great question. There is some evidence for boiling as being in pits in the ground, being more of the first instance of cooking in a pot, over a campfire. Because again, that's a very recent innovation. In terms of living longer, I mean, in a certain way evolution doesn't care about it that much. *[both laugh]*

Alie: They're like, "You make babies or not? Okay, get out of here, you're done."

Ellery: Yeah, exactly. I mean, so for Neanderthal, you and I are of a good old age.

Alie: So old. Oh I, oh, we're fossils. Can you imagine? They're like, "Whaaaat? Gray hair! What is it?"

Ellery: Yeah, I did have to explain this like just to my students a week or two ago when I showed them replica Neanderthal bones from an old man who was probably around 45, right? So, in a certain way, it doesn't matter in terms of living longer.

But even in terms of, like, pest control or something like that, in a cave, if you're trying to avoid getting bit by a bat, you could potentially use fire as a way to clear up bats and mice from a cave or something like that. There certainly are potential health aspects that deep in the past, that using fire as a tool could have assisted with. Do I think that humans figured out that if you boil water, it gets rid of the germs? No, I don't think that was at all on anyone's minds.

Alie: Over all of your research, do people ever ask you what is the best way to construct a fire? Is it leaning everything together in a triangle shape, or is it stacking like a log cabin?

Ellery: Yeah, see everyone expects me at the party to be, like, the fire tender, right? *[Alie laughs]* Like, "Oh Ellery, keep an eye on the fire pit." And naturally, I just pass it off to my kids like, "Yeah, just poke at it a bit."

Alie: *[laughs]* Dr. Fire... "Meh, I've got an apprentice."

Ellery: Yeah. Or I'll occasionally say, I should have a really cool firing pit in the backyard or something like that. And my wife will be like, "Let's get the house painted first, finish that job before you start building a kiln in the backyard."

Alie: Can I fire away with a lot of questions for a lightning round, from listeners?

Ellery: Yes, please do.

Alie: Okay, augh, we have so many questions.

Aside: Okay, and just to follow up, what kind of fire you make depends on what you're doing. For long-lasting campfires, the log cabin method might be the best, but for cooking on skewers, roasting stuff on a stick, you might want to lean logs into each other. But either way, make sure you're observing forest ranger cautions and that you are extinguishing things well before you leave. So, listen to the Fire Ecology episodes for more on that.

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Alie: You want a Fire Ecology episode sample? I thought so. Okay, so Dr. Gavin Jones studies fire in the landscape and I asked him, how many wildfires are because of apes, like us?

[Clip from Fire Ecology]

Gavin: A lot of the ignitions are human ignitions. People accidentally starting fires, machinery getting too hot, people driving over dry grass, and things like that.

Aside: So, Gavin says that 80-90% of all wildfires are human-caused ignitions. Half of California's largest fires in the last century happened in the past 5 years. By the way, a complex fire means a cluster of related fires in one area. But what's the difference between a wildfire and a forest fire?

Gavin: Typically, when we're talking about wildfires, those are unplanned. So, fires that we, as people don't plan. You can kind of juxtapose that with a prescribed fire or a cultural fire. So, prescribed fire is often fire that is purposely set and then managed by teams to achieve some type of objective. Maybe they're trying to restore some area, restore fire... You probably hear a lot about people burning prairies and things like that. It's the same thing in forests, they go in and do prescribed burns.

And then there's also a really important component of cultural burning. So, Indigenous communities using wildfire for their purposes, which until about 100, 200 years ago, made up the overwhelming majority of the fire activity that was happening in a lot of these areas. For the last 10,000 years or so, Indigenous peoples have been using fire in a really important cultural way. That has really changed in the past couple of centuries with colonization but that is an increasingly important part of the solution to this modern wildfire problem.

Alie: And obviously, Indigenous cultures and just the planet at large, saw the benefit of prescribed burns. So, what good do fires do, either in prescribed burns or just in nature?

Gavin: Yeah, that's such a good question. Fires are a critical piece of ecosystems around the world. Every square inch of land that has vegetation has some type of fire regime; it has some sort of natural fire cycle.

And fire is kind of a restorative process. There are many benefits of fire, we can think about it from a human perspective, we can think about it from an ecosystem perspective. From the human perspective, fires create more resilient forests when they burn the right way. When we have a natural, lower intensity fire in some systems like in the Sierra Nevada, where I've spent a lot of my time, that reinforces healthy water supplies, it reduces erosion.

Aside: Side note, a fire regime sounds like Satan's cabinet members farting flames in a Hades boardroom. But it's actually just a gentle term. A fire regime describes a pattern of fire: how frequent, how intense, what kind of fuel it gobbles. And maybe me just calling it Satan's cabinet members farting in Hades, maybe that's part of the root of European's fear of fire and thus this historical fire suppression by colonists.

[Back to Summersode]

Alie: Don't you kind of wish I had talked to an Indigenous fire ecologist too? Oh shit yes, I did. Now, if you haven't heard, here's a clip from the Indigenous Fire Ecology episode, with Dr. Amy Christianson who also cohosts a podcast called *Good Fire*.

[Clip from Indigenous Fire Ecology]

Alie: Can you describe a little bit about prescribed fires and Indigenous fire stewardship versus cultural burns? I think a lot of people maybe want to lump them in together, but can you describe a little bit about how they work or what they are?

Amy: Yeah, so there's a little bit of a danger of that, this whole thing where we're seeing prescribed fire and just kind of throwing cultural burning into that. So, prescribed fire is, you know, generally what agencies do, where they're setting fire on the landscape. But in many cases, they're setting high severity fires [*"It's burning really fast."*] and they want to

burn a lot of land in a little bit of time. So, we see lots of aerial ignition of fires, we see them using basically like helicopter ignition. And in Canada, lots of times, people put that together as being a crown fire, being these big, bad out of control fires that are burning up mountainsides. That's generally the media that we see in Canada about prescribed fire.

But it really differs from cultural burning because cultural burning is more about achieving a cultural objective around the forest, around where you live. So, you don't really want to have these big, large, stand-replacing fires that go through and can kill everything. In a prescribed fire event, that sometimes is what happens in Canada.

So, for cultural fire too, the thing is that most fires are actually pretty low intensity. In Australia, they call them slow burns or cool burns. They generally move through the understory, and they're done at certain times of year, where the potential fire behavior is very low risk. So, you know, you're not getting potential of crown fire, there's lots of natural fuel breaks around the fire; in Canada, that's usually snow still on the ground. For Indigenous people, cultural burning too is a family, a community activity. So, when I'm doing burns and things, I take my daughters, my mom was on the last one that we did.

Aside: There's a great photo that's run in a few news articles about Amy's work and she's standing in a golden grassy field, it's hazy with smoke as a cultural burn grass fire she's overseeing lurches behind her. There's a husky, wolfy dog sitting to her right staring off, and Amy's wearing black leggings and a red flannel shirt and is pregnant with what would be her second daughter. So, the mood is very calm, unlike what most people's experience of what land on fire might be.

Amy: Lots of times, you know, we don't wear personal protective equipment, like the kind of Nomex that you usually see firefighters wearing because usually the fires are honestly just so slow and most people find them, I think, a bit boring too because it can take a really long time to burn a really small piece of land. So, for agencies, it doesn't really work well. That, for them, means more staffing dollars and other things to achieve a smaller area burned.

Alie: At what point did you decide to spread the word about good fire? The term 'good fire' is something that I kind of just learned. Can you talk a little bit about what good fire is?

Amy: Sure, so good fire, I think comes just from the idea that, you know, it's very obvious that we can have good fires on the landscape; fire is something that is helpful to the environment and to people. So, I think Indigenous people lots of times see fire almost in a dichotomy. These bad fires, and then the good fire that we can use as a tool.

But before colonization, Indigenous people would use fire on the landscape in good ways. But then also, we did have lightning fires, obviously, back then. They would come across the landscape and kind of enter into this mosaic landscape that these Indigenous burns and other lightning-caused fires... as they would enter, the fire behavior would change. As it would enter in a meadow, the fire intensity might decrease, and then it would go back into the forest and maybe increase, and then it would hit a deciduous stand of trees and go down again.

So, this mosaic, or patchwork on the landscape was actually really helpful for fire to kind of decrease the intensity of these fire events. But what we're seeing right now is because we've been suppressing those fire events, there's so much fuel in the forest that we're seeing these bad fires. I'm thinking of the Dixie fire in California right now, or we have multiple fires in Canada at the moment too that are bad fires. Lots of times we look at say, "Fire is natural,

there's good ecological benefits." But for me, there's nothing good about these current fires happening right now.

Aside: So, at this point, our Facetime call cut out because of spotty internet, so Amy recorded a clip answering a few more questions because she is the best and knew that we only had a few days until this went up. She's, once again, the best.

Amy: I also just wanted to mention the importance of Indigenous people in fire in Canada, but also in other countries. We often think about Indigenous people and fire management as something that happened in the past, but we have a lot of amazing Indigenous firefighters in Canada, Indigenous fire managers, and other people who are really on the front lines trying to bring back good fire and Indigenous fire stewardship. They're really out there every summer, protecting our communities from these bad fires.

Especially in Canada, lots of times we don't give enough attention to those Indigenous firefighters. Lots of times they're kept from progressing in their careers because they might not have the appropriate Western education level, so a degree or a diploma or something. But they have you know, might have 20, 30, 40 years' experience of being on the fire and so knowledgeable and incredible.

And I think lots of times we need to look at where Western science got some of its ideas. I've spoken to many elders who have told me about drip torches and how they would use tree limbs and sap to create their own drip torches. That's what their ancestors did and how they would spread fire across the landscape was in doing that. So now, it's a metal canister with fuel in it, but it's kind of the same idea that Indigenous peoples had about how to use fire properly on the land. And just this incredible knowledge base and people in the communities had roles. In Canada, some nations actually had families that were fire keepers. There were many people who knew about fire and had knowledge about fire activity.

[Back to Summersode]

Alie: So, a whole episode on that awaits if you haven't heard it. And of course, all these episodes mentioned will be linked on this episode's page at AlieWard.com/Ologies/Summersode.

Now, what if part of taking care of the land is eating the weeds? So, this clip from Foraging Ecology is for you. And it's also for anyone who DMs or emails me asking me to have @BlackForager, Alexis Nelson on *Ologies* who has missed that she has been on, and it was so good! So, here is some wisdom from the Foraging Ecology episode with her on how to eat your neighbors' bushes.

[Clip from Foraging Ecology]

Alie: When it comes from where you forage, how do you do it differently in the city versus if you're out on a hike? And what kinds of stuff do you find in each place?

Alexis: Yeah, so in the city it's going to be a lot more of the kind of classic, quintessential weeds, the plants that like taking advantage of disturbed ground where they don't have to outcompete any of our other native species. So, right now in the cities, I'm seeing a lot of Queen Anne's lace already putting up their new sets of leaves for the year. Tons of dandelions, a lot of clover, white clover, red clover, and now sweet clover is starting to show up to hang out. A ton of mugwort; I passed a couple very healthy stands of mugwort while I was on a walk around the neighborhood today that I WILL be visiting this weekend because I'm in the mood for mugwort roasted potatoes.

Aside: So, what does mugwort look like? I had to look it up. It's a member of the daisy family, so its leaves look like daisy leaves, and it has clusters of these drooped bell buds at the tip of a stalk. And mugwort can grow meters and meters high. While scientists call it *Artemisia vulgaris*, close friends call it riverside wormwood, felon herb, old Uncle Henry, and naughty man. And I feel like I have to buy mugwort a beer to hear how it got those nicknames.

But mugwort just means marsh root and it's best to pick the leaves and buds between July to September. You can season some meat with it, you can make a mochi dessert, or look into its medicinal purposes. Indigenous people in North America used mugwort for a wide variety of ills like pit stank, to colds and flus, rousing folks from comas, and even inducing labor. So, Ethnopharmacology episode anyone? Yes. But yes, when this was recorded a few weeks ago, Alexis was planning to gather some mugwort and roast potatoes with it.

Alexis: A lot of the friends who you see enjoying spaces that maybe have been modified for something else. We have a couple empty lots in our neighborhood in which the ground was turned over before the winter and now that ground is just covered with weeds.

Whereas if I'm in the forests right now, or out in the woods, oh gosh, it's like almost a completely different biome. We're still in the middle of spring ephemeral season, so I'm seeing trout lilies, trilliums, ramps, cutleaf toothwort, Virginia bluebells. I'm starting to see pheasant back mushrooms, oyster mushrooms, morels, of course. And then you have a lot of the trees whose early leaves are edible, starting to leaf out like your maples. You have pines, spruces, and firs putting out their new growth and their needles are very soft right now and great to incorporate into meals too.

So, it's a fun game kind of having to change the mindset of what you're looking for depending on where you are. I'm lucky that where I live here in Ohio, while I very much live in the city, Columbus proper, I do not have to go very far to not feel like I'm in the city anymore.

Aside: Okay, how can you make sure that you don't accidentally die though?

Alie: Hope says, and maybe this is some flimflam you can bust. Hope says: I've been told that you can test for berries being poisonous by rubbing them on your hand and seeing if it tingles or numbs. And then if it doesn't, doing the same with your cheek, and then if nothing there either, you might be able to eat it. Is that true at all? Is it flimflam? Is it reliable?

Alexis: For a lot of us, especially who grew up being very outdoorsy, that was kind of the way that we were told to deal with a situation if we [*dramatic voice*] found ourselves stranded and in the middle of the woods. The way I always heard it was you'd rub it on the inside of your ankle... you pretty much just travel to more sensitive pieces of skin and wait a few hours to see if it reacts.

Because I am a cautious being and because not every hazardous plant behaves the same way, or possesses the same toxins, I'm just going to go ahead and say that unless you are dying, probably not the best rule of thumb to go by. [*Alie laughs*] And even if you are dying, probably not the best rule of thumb to go by. [*laughs*] Also, if you are looking for berries, I can say with confidence if you are in North America, we don't have any poisonous compound berries, so if it looks like a raspberry, you're good to go.

Aside: Okay, so compound or aggregate berries include the dewberry, the blackberry, the raspberry. So, that should help, Rebecca, Rachel Sortor, Mandii Smith, Donnielle O'Neill, and Megan Burnett Tarasiewicz.

[Back to Summersode]

Alie: Just a PS from 2022, I texted Alexis last week to see if serviceberry season has ended. She told me that in the northern US you can still go out and grab them, but now... like right now. And just a quick follow-up question, I'm sorry. What is a serviceberry?

[Back to Foraging Ecology]

Aside: On that topic, this is a very, berry good question.

Alie: Emma Kiley is a first-time question-asker, and their greatest love is for serviceberries. Is a service berry like a raspberry?

Alexis: [gasps] Oh my god, serviceberries! I'm so glad someone brought service berries up because I always want to just shoehorn them into the conversation, but I never know if people are going to know what I'm talking about. So, serviceberries, which are *Amelanchier* genus, there are a couple different species that fall under it, but we call them all serviceberries, or juneberries, or saskatoon berries. In southern Ohio, sometimes they just call them sarvis or sarvisberries.

They actually look a lot more like blueberries; they are crowned berries, so they have the little points sticking out of them, the little last signs of their flowers. They, oh man... they might be my favorite. I love papaws just from, like, a purely ethnobotanical history standpoint. But serviceberries might be my favorite thing to forage. They taste like apples and blueberries mixed together.

Alie: Oh man! Can you make a cobbler? Can you get enough to get a cobbler out of them? Or is it like, if you get 3 of them, you've had the best day of your life?

Alexis: Oh no. So, last year, just from the sole tree closest to my house, I gathered enough berries, while still leaving all the ones I couldn't reach, which was most of them, for the birds... I gathered enough to make like 10 hand pies. [Alie groans] Last year for whatever reason, I gathered like one big jar of serviceberries and was like, "You know what, I'm tired." And by the time I wasn't tired anymore, serviceberry season was over. [both laugh] So, this year, I'm going to stock up all of my energy and my strength and we're going to go ham on serviceberries. My neighborhood loves planting them as ornamentals, so they are [whispers] everywhere.

Alie: Oh man! That's got to be in like, apartment listings: what is around you that you can eat.

Alexis: Right? I honestly think that people need to start listing it because if someone told me that a house that I was maybe going to move into has a serviceberry tree out front I'd be like, "I'm done. Sold... You don't have a washer or dryer, but you have a serviceberry tree? Who cares! I'll wash my clothes in the sink, that's fine, it's better for the environment anyway." [both laugh]

[Back to Summersode]

Alie: Okay, but what if you belly up to the berry bar to find out that it's *beary* in other ways? So, we did back-to-back Ursinology episodes that are so good, all about bears and I asked Dr. Lana Ciarniello, who is a wildlife consultant and conservationist, who studies human-bear interactions, I asked her your questions about this.

[Clip from Ursinology Part 2]

Lana: Okay, so Hannah asks: Attacks aside, what are the best ways to prevent a bear encounter? So Hannah, this is really kind of dependent on whether you're going camping, or whether

you're hiking, or whether you're asking me about the best ways to prevent an encounter around your home, like removing your bird feeder. So, I'm going to answer it like you're going hiking.

So, one of the best ways to prevent a bear encounter is first to know where you are going, what time of year you're going there, and where you're most likely going to encounter that bear. If you're going to hike, for example, in berry season through a berry patch, that might not be the best way to go. You want to avoid their critical habitats, avoid places where those bears are most likely to be.

Another way we can prevent encounters is to really be aware of our surroundings. Rather than unplugging and plugging in things like earbuds and listening to music, you want to have your ears open, have your eyes open, have your nose open. You want to make sure there's no really bad smells, like a dead animal somewhere that might be attracting a bear. You want to make sure you're looking all around you and know what's going on. Is there any bear sign? Is there scat? Scat is bear poop, by the way, that's what we call it. Is there scat on the trail? Do you see a bunch of birds that could indicate a carcass ahead? Those kinds of things.

Then, when we're hiking ourselves, you ask, does singing loudly work? Absolutely! I highly recommend using your voice. Your voice identifies you as humans and the vast majority of bears know humans and human beings. So, singing loudly definitely works. Clapping your hands absolutely works.

You've asked here about bear bells. I don't recommend bear bells, I don't recommend bear bells because they don't identify you as human, they've been shown to be in the same decibel range as birds. And bears are curious, so we don't want to attract them. So, I actually don't recommend bear bells.

Another thing you want to do Hannah, is know your line of sight. So, if you're coming up to a blind corner, you certainly want to be using your voice and clapping your hands, or singing loudly, as you say, before you're going to come around that corner, warning the bear that you're coming. We don't want surprise encounters. So, we want a really good line of sight around us. We want to keep our eyes open, our ears open, and our nose open in bear country. Avoid those surprise encounters and let bears know we're coming.

Also, we never, ever, ever feed bears or provide food for them. Bears can find their own food; do not provide human food for them. It really is true that a fed bear becomes a dead bear.

Another thing that we want to keep in mind in preventing the bear encounter is the direction of the wind. Is it blowing toward you? Is it carrying your scent down the trail so the bear can get your scent before it's there? So, if you're using your voice and then it picks up your scent in the wind, bears have an excellent sense of smell. So, if they can get that scent... Bears really do their best to coexist with us, and a lot of times they'll just move right off that trail, be silent as they can, and allow you to pass by and you might not even know they're there. So, wind direction is really important.

Wind direction is also important because I highly recommend that if you're going into bear country, you carry bear spray. Bear spray is an excellent, excellent tool should you ever need it. We never want a negative encounter with a bear, but should we have one, we want to be prepared for it. You're also really going to want to know your wind direction then,

because the last thing you want is to dispense that spray and get it back all over you, because it really does debilitate you, sort of incapacitates you for quite a while.

Aside: Wes has studied bears all over the world and has not gotten killed one time. So, let's hear his advice.

Wes: Lucy asked: I've heard mixed reviews on tools like bear bells and bear bangers and have firsthand seen that bear spray does basically nothing. What are the best tools for people to have with them when they head out into bear country? Well Lucy, I'm going to have to disagree with you on the bear spray thing. I've also seen it firsthand a lot of times and I've seen it work almost every time I've seen it deployed, whether that's in person, or in videos, or anything. My mentor was kind of the guy that wrote the paper on bear spray, and it's been proven to be really, really effective; much more effective than firearms even. So, bear spray is definitely the number one tool I would recommend people take with them into bear country, especially if you're going to be around brown bears.

The bear bells don't really work. Sometimes we actually joke around and call those dinner bells. There's just nothing, there's no real biological significance to that noise for bears, it doesn't really register for them, it's not something that they necessarily pay attention to. Bear bangers, which are the little flares or the little pop gun kind of blasts that you can shoot at them or cracker shells or anything like that, all that stuff works really well. They don't like flares flying at them, they don't like loud noises; those all work. For me, I carry bear spray and then I have sometimes a firearm as a backup.

[Back to Summersode]

Alie: And that was @GrizKid, AKA, Wes Larson, who is another great bear expert that you should be following. But one bloodthirsty threat that you should not shoot at is a tick, in your butt crack. So, how do you make sure that no one is eating and living rent free in your crotch? Let's ask acarologist and tick expert, Dr. Neeta Pardanani, shall we?

[Clip from Acarology]

Alie: What's the best way to not get bitten by one? Is it repellent? Is it wearing just a wetsuit, all the time?

Neeta: *[laughs]* Suit of armor, yeah. So, unfortunately in the 40 years since Lyme disease was first described, right here in the state of Connecticut, we haven't done a super job at getting people to prevent disease. In fact, the number of cases in the nation has been growing rather than subsiding.

But what we do know from many research studies is that there are some things that may be protective against Lyme disease specifically. So, for example, we know that in a couple of studies, performing bodily tick checks frequently can be protective against Lyme disease. So, that is inspecting your body and that includes your entire body. *["Ohhh"]* So, particularly the cracks and the crevices and the, you know, armpits.

Alie: I see where you're going.

Nita: Yeah, well right. Because a tick will crawl up; it'll find its host, it'll be waiting on the vegetation for a host to walk by and so you may encounter it at your leg, but if there's no skin showing there, it will keep walking up until it finds some skin. So that might mean it will crawl under your shirt and into your armpit or up into your hair, behind ears. We find a lot of them at places that are constricted by, say, a bra strap, or underwear, waistbands, those kinds of things.

So, performing a tick check is a good idea, and actually performing one daily is a great idea because the Lyme-causing tick, the blacklegged tick, is unlikely to transmit the bacteria that causes Lyme if it's been attached less than 24 hours.

Alie: Oh!

Aside: Okay, so this is amazing news. There's a magical window, an almost biological grace period, in which you are less likely to have one of these tiny bastards drool a disease into your blood. So, take a moment to just... feel yourself, all around. Get comfy with a hand mirror. Also, you can do this one thing that people on the bus might appreciate as well.

Neeta: Yeah, so the other thing you can do, and there's a couple of studies that support this, is take a bath or shower shortly after coming inside from being outside. So, that could work in a couple of ways. So, you could be washing off ticks that haven't yet attached; if the tick has attached, it's not going to wash off, unfortunately, it will stay there, the water will not do anything to deter it. But if it hasn't attached, you can maybe wash it off. You're also removing the clothes that you're wearing that may have ticks crawling upon them.

Another thing you can do – and this is all personal protective measures you can take – you can take your clothing after you've been outside and put it right in the dryer. There was a study that showed that if you put the clothes directly into the dryer and dry them on high heat for 10 minutes, it should kill the ticks that are crawling upon them.

[Back to Summersode]

Alie: So, kiddos, like we always say here on *Ologies*: check your crevices. We even have Check Your Crevices merch at OlogiesMerch.com if you need it. I'm just saying. And for more on all of this, you can see the Acarology episode and the Lyme disease and tick-borne Disease Ecology episode with Dr. Andrea Swei, which we'll also link on this episode page on my website. Because tick-borne infection, not something you want to be writing home about.

Speaking, and writing of which, did you know that Deltiology is the study of collecting postcards? I did, because I interviewed Donna Braden, who is a museum curator and the Henry Ford Museum of American Innovation, who for a job, has been a postcard conservator and enthusiast.

[Clip from Deltiology]

Alie: Do you think that postcards back in the day were the equivalent of a text message, whereas a letter was an email?

Donna: That's a great... I think, you could have something there. Particularly because the back was divided in half, and one side you had to put the address on. So, you were left with one half of a postcard to write the message and I have messages on some of them where, you know, people used up the space because they wrote too big and then they're writing all around the edges and the top, but I don't think you were supposed to. The post office did not like it if you ran over into the side with the address, because that was the rule, the address, the stamp, and only this side is for the writing.

So, that's a great point. You were forced to write almost like a Post-it Note sized message on there and that's why when we studied messages on the back of postcards for an exhibit we did called, "Americans on Vacation," it was fascinating, not only to see what people wrote, but also there were certain formulaic ways that people wrote things, [Alie's voice, echoey and distant, "I love this..." then normal, "I love this."] that because you had to write in phrases

and there were certain things people commented on repeatedly: the weather, car breaking down.

Alie: *[laughs]* They're like, "One of the kids poked the other's eye out, we're getting a divorce, see you soon!"

Donna: Exactly. But interestingly, we also found that there was a lot of... we're not sure how far they stretched it, but people tended to want to make their vacation sound really good.

Alie: Oh my god, that's what they do on Instagram! *[laughs]*

Donna: Exactly. And Facebook. It's a bragging thing. "We are here, and you are not."

Alie: Yes!

Donna: Therefore, we're going to make it sound as good as possible. There's the classic, "Having a wonderful time, wish you were here," showed up repeatedly, it's not made up. It was always that kind of, "We're having a great time and you're not." A little bit of one-upmanship.

Alie: No one's ever like, "The wife got salmonella from the shrimp buffet."

Donna: You don't hear that a lot on a postcard. Maybe a letter where people have a little more time to play that out. Certainly, journals that we've read, trip diaries, where they don't expect anyone to ever read them. I have a lot myself of those. *[Alie laughs]* But postcards no, it's very short and sweet and it's mostly highlights, like social media now. It is kind of like that. You get a picture and a little bit of impression, mostly positive.

Alie: So now, the "Americans on Vacation" collection you put together, where did you get those postcards and what was it like reading all those little messages and seeing the handwriting and the postcards? Was that mind-blowing for you?

Donna: I can't even remember how we came up with the idea to do a presentation in the exhibit on the messages in postcards. I think because we read about vacations, we realized that everybody is familiar with the pictures on the front, but not a lot of people are familiar with what people say on the back. Nobody has written anything about that, it was a new idea.

So, when we started reading them, we went, "This is rich." And we thought, all right, we need to start accumulating a collection of postcards with interesting messages. How do we do that? So, we went to antique shows and there was one nearby here that was every month. So, my colleague and I went there for the specific goal of looking at postcards with messages.

There were a few dealers we knew that had postcards and they were all organized by state or topic, and they were freaked out by what we were doing. They were like, "Well, what topic are you looking for? I can help you." And we were like, "No, we're not really looking for topics, we're just reading the backs." *[Alie laughs]* And eventually they just gave up and threw up their hands and said, "Okay, you're on your own," and they let us stay for an hour or two hours at a time because they didn't organize anything that way, no one ever bought postcards that way. And we just had the best time reading all of them and we made a pile of some of the more interesting, good and bad, messages. And that became this media presentation in the exhibit.

Aside: So, this "Americans on Vacation" exhibit, appropriately, toured the country, and it featured these chronological looks at types of recreating we did back in the day. It had this audiovisual component of actors reading the backs of vintage postcards, kind of giving life to these long-gone moments and voices to people who would never know that their road

trip or steamer cruise memories would be in the hands of postcard collectors and in the ears of future strangers. And I tried so hard to find audio of this, but we're just going to have to imagine. I'm imagining... and it's super cool. Okay.

[*Back to Summersode*]

Alie: Like maybe someone this summer will send a postcard that reads, "Dear grandpa, I'm having such a good time this summer with my friends, even though one of them wouldn't let me pee on them." Toxinologist, Anna Klompen explains.

[*Clip from Toxinology*]

Alie: And what happens if you get stung by a jellyfish? I was in Hawaii, someone in our group got stung by a jellyfish. I was like, "What's going to happen, who is going to pee on him?" What do we do? What happens?

Anna: [*laughs*] Please don't pee on them. Nobody should pee, yeah that's a very common flimflam I guess you'd say. [*Alie laughs*] So, when you're stung by a jellyfish, what's happened is that you've touched the tentacles or something and hundreds to maybe thousands of stinging cells have now kind of punctured and are sticking to you and injecting venom through your skin. I am in no position to give medical advice; I want to say that right away. [*Alie laughs*] But I can definitely tell you things you should not do.

So, you definitely should not pee on it, and in the same vein you should not put fresh water on it. I actually use fresh water to discharge stinging cells in the lab. And your urine is basically fresh water. At the same time, actually peeing on someone, the pressure from peeing on them will make them fire.

Alie: No!

Aside: It's like throwing kerosine on a fire, only it's pee and its venom-filled cells firing into a skin inferno. Now, if you have ever had the insult of pee being added to the injury of a sting, I am so sorry for the emotions that this is bringing up in you. So, other than see a therapist later, what should you do?

Ann: So, one of the best things that you can do is to try and get, if there's any pieces of tentacle, which is very possible, you want to get that off, and you want to try and get as many of the stinging cells off as possible. And one of the better ways to do that, if you have tweezers, you can try and pick them off with tweezers. Tweezers aren't always available so, going back into the ocean, wherever you were and got stung and using salt water – salt water will not activate the stinging cells to fire anymore – and you very gently, as much as you can, try and use salt water to wash away the tentacle and any of the stinging cells in that area.

[*whispering voice, "Gentle."*]

Alie: Oh smart. Okay, so go back to the scene of the crime. [*laughs*]

Anna: Yeah but be careful you're not like... there's not more jellyfish or whatnot.

Aside: So, Anna says that Dr. Angel Yanagihara of the University of Manoa does amazing work in venoms as well, and she got into the field after sustaining a near-fatal sting during a morning ocean swim, decades ago. But her 2017 study showed that seawater could worsen the stings if the pressure of the rinse is too hard, like it would be with a robust stream of pee.

Anna: Then the next best thing... so, it now kind of varies. A lot of places recommend vinegar. So, vinegar will actually prevent more, if there are stinging cells left, will prevent them from

firing. So, it kind of deactivates them. But there's some controversy that for some species, it might make them fire more. But for box jellyfish, I should say, box jellyfish, and places where you know there's box jellyfish, vinegar definitely helps.

Like a good citizen, before you go out into the ocean, check if it's jellyfish season and what jellyfish will be there.

Alie: Oh, you can do that? Is there, like, a jellyfish forecast?

Anna: Yeah. My family will go to South Carolina fairly often and they do have reports on when jellyfish season is, which is normally the warmer months, but it varies again between species. And they will have the most up-to-date, for that area, precautions.

Aside: So, do some googling.

[*Back to Summersode*]

Alie: Should you worry about sharks though? You can listen to the Selachimorphology episode with Dr. Chris Lowe, or the follow-up Elasmobranchology episode which includes safety stats and pop culture clips from various shark scientists from MISS Elasmobranchology. The MISS stands for Minorities in Shark Science.

And this is a great time to toss some money their way, thank you to sponsors of the show. MISSElasmobranchology.org is a nonprofit and they provide a community and funding opportunities for gender minorities of color who wish to enter the field of shark science. They have tons of really great programs; you can actually join them shark tagging. You can see MISSElasmobranchology.org to donate to them, which I think you should, and to learn more. And thank you to sponsors of the show for making our donation possible.

[*Ad Break*]

Okay, where were we? Yes, Elasmobranchology facts, from...

[*Clip from Elasmobranchology*]

Jasmin: Jasmin Graham, my pronouns are she/her and I am the president and CEO of Minorities in Shark Sciences also known as MISS.

Alie: Any favorite or least favorite pop cultural sharks?

Jasmin: My favorite shark movie is *Deep Blue Sea* because it's so ridiculous, the science is so ridiculous that it's hilarious. And it is genetically modified sharks which I think is a very interesting take on things. So, I like that in the movie they talked about how in the natural order of sharks, they're not aggressive, they're not doing all these things. So, they set the stage and say, "We're going to make this movie, but we're going to acknowledge that sharks aren't actually like this, this is a very special situation where someone has really messed with these sharks, and that's why they're acting like that." And it's one of those movies that really makes you root for the shark because they have been done wrong and I relate.

Also, the greatest scene ever where Samuel L. Jackson is giving an impassioned speech [*"We're going to pull together and we're going to find a way to get out of here!"*] and then gets eaten by a shark, is hilarious and the greatest moment in cinematic history, in my opinion. So yeah, that's kind of what I have to say about sharks.

Aside: What about Minorities in Shark Science?

Jasmin: We are an organization dedicated to supporting women of color interested in shark science and we want everyone to get an appreciation for sharks. There is a misconception that

sharks are these man-eating, mindless, killing machines and that is not true. Sharks are extremely intelligent, they're actually more discerning in what they want to eat than we give them credit for in movies and things like that, they're not aggressive, they're actually more afraid of us than we are of them, which they should be because we kill millions of sharks a year and only one or two people a year are killed by sharks.

Aside: It's true, the 2020 shark chomp report... it's a real snooze to be honest, not a lot going on. So, these facts are, like, sleepy at best. 33 people in the US got bitten by sharks last year, three fatally. Only ten fatalities worldwide from sharks. What?! So, how many sharks die by human hands each year? Well, the journal, *Marine Policy*, estimates 100 million.

Jasmin: So, in this scenario, definitely the sharks have a bigger reason to be afraid of us. So, that's really what I want people to take away from all of the outreach and education that I do, is that sharks are just like any other animals, they're just out here trying to survive, and they need our help because we are killing them at an alarming rate. Some of them are endangered, many of them are threatened, and it's important that we think about what it would mean for the ecosystem if we were to take these apex and mesopredators out of our systems. So, that is why I study sharks.

Aside: And that is why Jasmin and MISS is amazing.

[*Back to Summersode*]

Alie: And just as long as we're confronting some of your summer anxieties, let's check in with Spheksology guest, Eric Eaton, who wants to make wasps not your summer enemy. They're just trying to make a living.

[*Clip from Spheksology*]

Alie: First-time question-asker, Exuro Piechocki, wants to know: How is it that wasps and bees look so similar, but wasps have evolved to consume meat while bees are content just to rub their butts in flower dust? Why do some wasps eat meat? I know when I used to be a caterer, when there were yellowjackets they'd be like, "Just throw a piece of ham over there to divert them." What's up with that?!

Eric: Well, again, the adult wasps are not consuming protein matter, they're taking it back for their offspring.

Alie: Amazing.

Eric: I've watched a yellowjacket cut a piece out of my turkey sandwich and fly off with it. [*Alie laughs*] By the way, one thing I want to caution all your listeners about is serving beverages outdoors. Do not serve them in cans, opaque bottles, or glassware; you could get a yellowjacket crawling in there, and if you get stuck on your tongue, even if you're not allergic, that can be a life-threatening experience. Serve your beverages in clear glasses.

Aside: So, about a million people go to the ER every year for insect stings and most are just fine, but about 60 to 70 people die every year from allergic reactions to stinging bugs. So, just look for symptoms like tingling sensations, dizziness, hives (the skin kind), swelling of your lips or tongue, maybe having a hard time breathing or wheezing, or if someone just straight up passes out, no matter why, you should probably go to the ER for that last one anyway. But one of Eric's pals, he says, you may have heard of him...

Eric: Justin Schmidt, the King of Sting, he's called, created the Schmidt Pain Index of insect stings.

Alie: [*gasps*] Yes!

Eric: He occasionally will self-inflict a sting upon himself and then describe it and rate it on a scale of one to four; four being the worst thing and one being the barely detectable, basically. Honeybee is a number two on his scale by the way. But he found out that tarantula hawks, which need their venom to paralyze their tarantula prey... I mean, you got to have a pretty wicked sting, I would think, to paralyze a tarantula anyway. But it turns out that it's absolutely excruciatingly painful if you get stung by one of those things, but in about three minutes, you're fine, and it doesn't do any damage. It's totally tailored to the prey item they're after. And for solitary wasps, that's the deal, they're tailoring their venom to a specific host. They're not worried about self-defense.

Aside: So, for solitary wasps, their venom is really prey-specific. Now, what about the city wasps? The ones who live in big papery buildings on the side of your house, or underground with thousands of other ones and they just love the hustle bustle of the nest life.

Eric: For social wasps, that's another story. That is the purpose of their sting is you know: get the hell away from our nest, we got babies in there, get out. And you know, they can route a bear out of their nest.

Alie: What's the highest on the Schmidt Index you've ever been stung?

Eric: *[laughs]* Oh wow. Somewhere around a three probably. A paper wasp got me once and that was pretty painful.

Alie: Yeah? Myrmecologist, Terry McGlynn, talked to me about his bullet ant bite. Did not feel good, the sting. Oof!

Aside: Will Eric ever be sticking his face into a nest for YouTube clout?

Eric: My feeling about myself is that if it ever becomes about me, I need to find another line of work because I want it to be about the message and my message is that these things deserve an appreciation and respect that we're not giving them right now.

[Back to Summersode]

Alie: So sure, they may have knives on their butts, but that's just how they evolutioned. Not all of us can have an ass that's a disco like fireflies, which are out right now, in many parts of North America and the world.

This next ologist, Dr. Sara Lewis, is one of the world authorities on fireflies and in a surprise twist, instead of the more expected Lampyridology title, she insisted, as a matter of record, that she is a sparklebuttologist. That is the ology, she's about to make you turn off the tv and sit on the porch, just blinking into the grassy abyss, on the hunt for magic.

[Clip from Sparklebuttology]

Alie: And what about you, are you a night person? How much of your work involves these really long nights?

Dr. Lewis: Yeah, it's crazy you know, I don't know what people who live in the tropics, where firefly season is all year round, I don't know how they survive. Because in the temperate zone, you have kind of a short firefly season; it might go from May until September, or maybe just June, July, August. And during the firefly season, my students and I, basically, we work day and night. We get so strung out it's ridiculous; we can't even think straight, people hate us, our partners leave us, our dog walks out, it's really bad. You can do it for a few years, and then you have to take a break.

But you know, we're usually out in the field at night and then we are often doing lab experiments with fireflies that we've collected from the field and then put on a reverse light cycle so that they think it's nighttime when it's actually daytime. And so, during the day, we work in a dark room on fireflies that think it's night. So, you can get kind of strung out on that after a while.

But you know, it's all worth it, yeah. It's fabulous to be able to bring some of the magic of these creatures to light and to let people know that they're real and they're really, really kind of amazing. [*"They're real and they're spectacular."*]

Alie: And you mentioned the tropics and the temperate zones. Does that mean that they don't inhabit, like, arid climates as much? Why don't we have them in California?

Dr. Lewis: So, another myth that I am actually really happy to be able to debunk is that a lot of people think that there aren't any fireflies in the western United States and that's not true. So... happy! You should be happy! [*Alie laughs*] So, there's at least three different kinds of fireflies. There's the daytime fireflies, they fly during the daytime, the adults don't light up even though the larvae do, they're still in the same firefly family; there's lots of those in California and in the west.

There are also glow-worm fireflies, where the females glow. Typically, they are worm-like as in, they don't fly and there's really, really cool glow-worm fireflies on the west coast, including, you've got to google this, the California pink glow-worm. Oh my god, they're so beautiful, they are really beautiful and they're all over California and I don't know why people don't recognize those as fireflies. The males don't light up, but the females do, they glow for hours to attract these flying, unlit males. And they're really, really cool.

Aside: Okay, hold the phone, boy howdy hot damn. What? So, I'm a lifelong Californian, absolute sniveling simp for bugs, and yet this is the first I'm hearing *ever* of the pink glow-worm, alias, the firefly beetle, *Microphotus angustus*. Now, the ladies stay kind of babylike in a larva-ish form and they just cruise the leaf litter, kind of like salmon-colored, segmented, tiny hotdogs. And then their soulmates are dude beetles, who fly around, not glowing, but just looking out for butts. Now, I have spent my life jealous of New Jersey and ignoring all of these horny, babylike sparklebutts under my California nose.

But as long as we're getting regional, I covered this ages ago in a minisode you probably never heard but, do you call them, you personally, do you call them fireflies or lightning bugs? Take a moment, vote aloud, while you're layering up a lasagna, or welding something, or brushing a chinchilla. [*cacophony of voices saying either, "Lightning bugs" or "Fireflies"*]

Okay, I hope one of you said peenie wallies. Because a University of Cambridge linguistics professor with the name of Bert Vaux also needed to know, "Firefly or lightning bug?" So, he asked 10,000 Americans what they call sparklebutts. 40% of you go either way; firefly, lightning bug, you don't care. 30% of us are exclusively Team Firefly... hello West Coast, hi Massachusetts. And about another 30% say it's lightning bug. (The South, greetings to you.) But to my delight, and probably Professor Vaux's befuddlement, 0.02% of those people he polled called these glowing summer cuties, peenie wallies. So, that's two people in a study of 10,000. And if they are not already friends, oh I hope they find each other. I want them to hold hands and just stare into the summer dusk. So, my point is, we need not be a nation divided on the topic of peenie wallies, especially now, because...

Dr. Lewis: And the other exciting news, and this is something that we're really just... actually, this is really, really recent, that we have begun to realize that there are flashing fireflies in the western United States.

So actually, there's a Western Firefly Project that's run out of the Natural History Museum of Utah and they've been mapping flashing fireflies in Utah, Nevada, nearby states since 2014. There's a new project called the New Mexico Firefly Project, there's flashing fireflies in New Mexico and Colorado. I heard a rumor there might be flashing fireflies in Oregon.

A lot of this is very, very recent and a lot of it is based on citizen science like community science observations, just people going out into the night, looking for fireflies in different places where there are certain characteristics like moisture, darkness, and food for the firefly larvae. So yeah, it's really exciting, there are western fireflies. That's a myth that it just gives me great pleasure to be able to say, "No, not true. You do have them and they're really, really beautiful."

Aside: So, if you've been asking fireflies, "Where have you been all my life?" The answer is, perhaps closer than you thought. Right here, literally with a flashing butt, you just didn't notice.

[*Back to Summersode*]

Alie: Okay, super exciting 2022 update: I saw a peenie wallie, at last, in California. So, it was last week, it was a little glow-worm, it was segmented, kind of the color of raw tuna with an LED posterior. And I posted some photos on my Instagram @AlieWard. And after the first night, I saw her and lost my mind, it was here in the foothills of the Sierra Nevadas in northern California, I went back to the same spot the next night to show my young niece and nephew and sure enough, there she was.

And that second night, a moth flew up to her and I was like, "Oh shit that's not a moth, that's a male. They're doing the nasty." And I had to tell my niece and nephew, "Let's give them a little privacy, they only have a very small window for this and hey, wow, let's check out that rock over there, what a great rock." So, I hope those two make many sparkly babies this summer.

And as long as we're on the topic of flashes of light in the night, let's address the bombs bursting in air here in America. If like me, you have a pup that has diarrhea as explosive as your neighbors' fireworks, did you know you can ask your vet for Xanax ahead of time? The only caveat is that it's just for the dog, not for you, no matter how much many Americans need a sedative right now.

And speaking of July 4th in the not-feeling-very-United States of America, you can celebrate this ragged democracy by listening to the 2019 Nomology episode with Dr. Franita Tolson who is the Vice Dean of USC's Law School. She's a constitutional scholar who let me ask her an absolute barrelful of questions that many of us have such as: what is happening and why? Where does she think our constitution stacks up globally, in terms of other governments?

[*Clip from Nomology*]

Franita: It's one of the oldest, I think. I don't know if it's *the* oldest but it's definitely top five oldest. The interesting thing about the world, especially as I've really learned to appreciate other societies, this is not the only way to do this. Our Constitution is so old, and you know, we

kind of hold it up as a model. I think that politicians love to call America, “the light on the shining hill,” or whatever the term is.

Aside: I looked up this term and it was said a few different ways over the centuries, many times in presidential speeches. But remixes include: that light on the hill, that shining city on the hill, the shining city, and a city upon a hill. It is said to come from Puritan colonist John Winthrop’s speech as a bunch of folks were boarding a ship to set sail to form the Massachusetts Bay Colony. And Winthrop said that the new settlement would be, “As a city upon a hill, the eyes of all people are upon us.” Which meant, “Don’t screw this up, don’t wild out. It’s not spring break, okay? Everyone’s watching, so keep your holy bits in your breeches and like, try not to kill too many people.” Paraphrasing.

Franita: But this is not the only way to do this. So comparatively, I don’t know how it stacks up because I’ve never lived under any other system. But I also welcome suggestions from other types of government, other forms of government because I recognize that this is not the only way to do it, it’s not perfect, and we’re still working on it, right? It really is a question of how much work are we willing to put in in order to build a society where everyone can feel included. [*“We, the people of the United States...”*] And that might require looking at other constitutions and looking at other countries and seeing how they do it.

Alie: And how about this... [*hesitant voice*] two senators for every state situation? [*Franita laughs*] Can we just go in there with a little eraser? Do you think that that will continue? Was that what they had in mind when they wrote it?

Franita: Yeah, that’s what they had in mind, that was part of the compromise. The House of Representatives is based on population, every state gets two senators. I don’t see that changing any time soon. I know that people have strong feelings about it; it seems weird that Wyoming, New York state, California, and North Dakota all have the same representation. And then the Senate rules make the Senate especially non-democratic and non-republican in some sense as well. But I don’t see that changing anytime soon, that would actually require a constitutional amendment.

Aside: So, side note, after this interview, I realized I forgot to ask Franita about the electoral college, so I emailed her and was like, “What’s the deal with the electoral college? Is it fair? Is it unfair? Is it going anywhere?” And she wrote me right back and said:

Unfortunately, the electoral college is not going anywhere without a constitutional amendment. However, some states have taken steps to neutralize its effects by joining the National Popular Vote Interstate Compact, where participants pledge their electoral votes to the candidate that wins the popular vote. And so far, 16 states have joined the compact. There’s more information available at NationalPopularVote.com.

I was like, “Whaaaat?” So, I went and looked it up and those 16 states that have pledged their electoral votes to the candidate with the popular vote include: California, Colorado, Connecticut, DC, Delaware, Hawaii, Illinois, Massachusetts, Maryland, New Jersey, New Mexico, New York, Oregon, Rhode Island, Vermont, and Washington. If you’re like, “Hmm, my state was not listed, how might I get myself some of that legislative action?” Go to NationalPopularVote.com. Now remember, amendments can take a little bit longer than state-to-state legislation.

Franita: And as I pointed out, we haven’t amended the Constitution since 1992, and because we have depended on the court so much, I don’t even think there are people in this generation that understand the political capital and the political cost and political mobility that will be

required in order to change the Constitution. Constitutional change comes as a result of movements, political movements. So, we have political movements now, but I don't think they're the same as the political movements of the 1960s, for example. [*Dr. Martin Luther King Jr: "And I want you to know tonight that we as a people will get to the promised land."*] Or the political movements of the Progressive Era, which also led to some constitutional changes. I just don't think that people alive today – no offense millennials, no offense, and my generation included – have a clear sense of what will be required in order for us to actually amend the Constitution.

Alie: What would be required? What kind of revolution or uprising?

Franita: Oh gosh, you know, I don't even know. I think that in the Progressive Era, they were really concerned about corruption in government.

Aside: Okay, so side note, I did not know when the Progressive Era was, so I googled it and it was in the 1890s to around 1920. And according to a glossary on the George Washington University page, the early progressives rejected social Darwinism. They believed that poverty, violence, greed, racism, class warfare could best be addressed by providing things like good education, a safe environment, and a good workplace and they encouraged Americans to register to vote and to fight political corruption. Now, the Progressive Era came to an end after World War I, this glossary says, when the evils of humankind were exposed.

But by the 1960s, we had the Civil Rights Movement and Franita rightly calls that one of the biggest political movements in history. That kind of action, and engagement, and sacrifice is what gets amendments made.

Franita: People were politically active, they were focused... it will have to be like that across many states and for a longer period of time. And given the fact that we live in the social media, Twitter, Facebook, what's-going-on-today world, will people pay attention that long? I don't know.

Alie: Yeah. We could always try!

Franita: We could try. I'm an advocate of trying. I have nothing against using Article V.

Aside: So, Article V was in the original Constitution, so this is not to be confused with the 5th amendment on the Bill of rights. Article V, on the original, parchment Constitution says that to make an amendment, you need two-thirds of the House and Senate, or two-thirds of all the states calling a convention. So, who ends up in the House and Senate matters.

Franita: And in fact, I think that Constitutional amendment is important because even if you are able to go to the Supreme Court and get them to interpret the Constitution in a way that you agree with, it's only good for as long as that coalition is on the court. Right now, we have justices, like Justice Thomas, who don't believe that the court should really adhere to precedent, right? So, if others adopt his view and precedent has no value, then there's nothing keeping the next coalition of justices from overturning an interpretation of the Constitution. So, I think given the direction that the court is headed in, Article V will probably be more important. But in order for Article V to really work, people have to pay attention.

[*Back to Summersode*]

Alie: And if you have been meaning to read the Constitution in its entirety... I did it for us. Part 2 of Nomology is every word of the United States Constitution, with a few clarifying asides,

here and there, just for your hammock-swinging pleasure. You can nap to it, you can take notes, you can change your whole life, apply to law school, or you can just soak your lows, maybe with a margarita.

Hey, how do you make a cocktail that doesn't suck? Glad you asked. I asked world-renowned cocktail chef and Mixology guest, Matthew Biancaniello and it's some of the easiest math you're ever going to do.

[Clip from *Mixology*]

Aside: Okay, now listen up because this might be the most useful mixology lesson you can ever learn. You can never make a bland, or syrupy, gross drink again if you know this.

Alie: How did you dive in to try to understand the craft of cocktails? Sounds like you started looking into daiquiris and realizing, okay, there's a formula, there's math here. And it's plug and play, right? What are the basic ratios of that? Because I know that you don't really go by ratios.

Matthew: Oh yeah, so very simple. So, it was always two ounces of spirit and then three-quarter lime, three-quarter agave. If you were just doing it on its own, you would up the lime to one.

Aside: So, an easy way to remember this is the golden ratio, roughly 2:1:1. Two parts spirit, one part sweet (like a liqueur or some kind of simple syrup), and one part tart (like lemon, lime, or grapefruit). 2:1:1, you can make almost any cocktail a good one at home for almost free. And then when you go to fancy speakeasies like LA's Varnish, or New York's Death & Company, you'll be able to nod at the mixologist in a way that says, "I know your tricks. You're a math nerd."

Matthew: I remember one time, this guy got me the specs for The Varnish, you know what I mean? I looked at it and was like, "Okay, I can see what they're doing. I can see some patterns there. I can see what they do when they do a straight thing." So, that just kind of strengthened it. In terms of technique, I still feel like I don't really have technique.

Alie: Really?

Matthew: Yeah, I still think I lack that if I'm being honest and I think... like I said, it's not that I don't have some technique, but I think what's interesting about where I'm at right now is there's still so much to learn. I think it was also Dale DeGroff's book, I think it was called, *The Essential Cocktail*. So, I ended up getting that book and I got to read why he did certain things; the stirring and the shaking and all that. So, I adapted that stuff. But I remember, no one taught me so there I am, starting to stir and I couldn't do it with the spoon, so I had to bend it into a C shape. I took the metal spoon and bent it so much that it was easy for me to stir.

So, it also got to the point where I started doing some consulting, and I would tell people, "You know what? You don't need to worry about that right now, let's just get a metal chopstick and it's the same thing. Just get used to stirring it." So, I got sympathetic and interested in teaching people that knew nothing. It was more interesting to me than someone who had technique already. But I still feel like I don't really have a strong technique.

Alie: That's funny that you say that because I think you're widely regarded as one of the best cocktail chefs in the country. Easy, hands down. Your name is just like, you're at the top of the pyramid for sure. How do you feel about cocktail culture, the buttoned vest, sneery-faced, suspender clad...?

Matthew: I personally feel... Listen, I understood where it started from and all that and I don't know... I'm not even referring to the vest because I think it's nice for people to look nice, I understand all that. But I really do think that as time went by, I think a lot of the attitudes that people had and the kind of feeling superior, it kind of killed the culture a lot. And I really feel like when drinks started escalating and people were like, "Augh," they were more like that about it. I feel like some of that really kind of destroyed some of the culture of cocktails and how they should be regarded, I guess.

People would tell me stories; they'd go into a bar and ask for this drink and they'd make the drink, and they didn't really like it. And the bartender would be like, "That drink is perfect." [Alie laughs] And the thing is, that's the opposite of how I operate. I operate all on, "I am going to make this drink for you until you tell me it's great." I would horrify people where I'd make a drink and I could see it in their face, I would grab it out of their hand and dump it. They didn't understand that. They didn't understand how I would take a drink... because they're like, "That's booze!" I don't think of it, "That's booze" and I would dump it.

Yeah, there's a lot of layers in that and for me, the biggest challenge for me is to stay true to who I was even though some of the times it was like... fuck, difficult, you know? And I never wavered from what I did. That was always important to me, I never wavered from what I was doing.

[Back to Summersode]

Alie: If you are drinking, your balance and judgment may waver. Just a little PSA here: designate a driver. There's just a lot wrong in the world, the last thing we need is an accident. This is why I'm your dad, please be safe, I love you.

Also, just in buttoning up this episode, I thought we could revisit summer make-outs... as a person who had a hookup in July with a guy nine years younger than me, and then married his ass a decade later – what! – he's now your Podmom, Jarrett. I'm just a big fan of sweaty night romances, right babe?

Jarrett: We're huge fans.

Alie: [laughs] Gross.

Jarrett: Fluids.

Alie: Eww-

[Clip from Philematology]

Alie: Why do you think humans slobber on each other?

Dr. Dunbar: This is almost the big evolutionary question that remains unanswered. [Alie laughs] It's not very clear. There are various suggestions one can make. One is, it's clearly very, kind of, erotic if you like, it's very arousing. And the lips have a lot of sensory brain tissue devoted to lips, disproportionately so. Put it this way: monkeys and apes are very tactile, they do a lot of cuddling and stroking and if you'd like, petting, all those kinds of things we do, a lot of social grooming. And social grooming triggers the release of endorphins in the brain which kind of make you feel very relaxed and happy, contented with the world; it's very 1960s, hippie-ish. ["Endless sun, chill vibes, hot bodies."] The world is a beautiful place.

And very trusting of the person you're doing this with or who is doing it to you. And these involve a very special set of neurons, which only respond to light, slow stroking of the skin.

And we have those neurons too, they're known as the C-tactile neurons; they don't do anything else; they're not involved in pain or anything, sensing pain or anything like that.

We respond exactly the same way. That's why in our closer relationships, we're very tactile, there's an awful lot of cuddling and petting, and I don't mean this in a sexual context. I mean just, when you're talking to your good friends, you know, there's a tap on the shoulder and the arm around the shoulder and all this kind of thing that goes on. We're very tactile in that sense even though we don't really think about it.

But on the other hand, because it's a very intimate thing, as it is in monkeys and apes, you don't do it with everybody. This is why when you're caught in a crowded lift, you feel very uncomfortable because of all these people in very close physical contact with you. And normally, you'd only allow your nearest and dearest family and friends to be in that close physical contact.

So, we're very ambivalent about it for the very reason that touch is very kind of, you know, indicative of both close relationships and also spilling over from that, quickly gets exploited in courtship and sexual relationships between partners, right. So, the lips clearly play a major role in that.

That said, one of the other things that happens during kissing in particular is exchange of huge quantities of bacteria.

Alie: Right. *[laughs]*

Dr. Dunbar: A 10-minute kiss, I forget the exact amount, but it results in the exchange of something like 10 million bacteria from one body to the next.

Aside: So, a 2014 study out of Amsterdam revealed that one 10-second French kiss can transfer 80 million microbes into your partner's mouth! That is the entire population of New York City cramming into your mouth, every second of a kiss. That's love, baby! [*"If he was interested in me, he'd want my germs, he'd just crave my germs."*]

Dr. Dunbar: This is quite useful because actually that tells an awful lot about the other person. So, you've both got bacteria, the microbiotic elements from the other person being exchanged. But also, you're getting a lot of their inner saliva and stuff, a lot of the enzymes and other bits and pieces that the body produces, particularly the immune system. So, your personal smell... I hate to raise this, *[Alie laughs]* this tricky issue, but your personal smell and taste are directly determined by the same set of genes that determine your immune system.

Alie: Really?

Aside: So, we're using our tongues and our snouts to gather intimate intel about a person's immune system. You thought Google was sneaky. Whew! The nose is sneakier. So is the tongue.

[Back to Summersode]

Alie: So, you're just doing research, okay? Let your brain suss things out, you're doing great. If you're like, "Make outs, campfires, ocean visits, whatever... I just want to be happy in a world that feels weird." Let's end this Summersode with some science on how to stack your mental deck on the side of happiness with Eudemonology guest and happiness researcher, legit, Dr. Laurie Santos.

[Clip from Eudemonology]

Alie: Ben Dewhirst says: I'm just finishing up my MBA and in one of my classes they talked about how optimism is actually an attribute of emotional intelligence and can be learned. As an optimist myself, I always considered it more of a part of my personality like extroverted or introverted, and unteachable. So, how would someone go about learning and training how to be an optimist? And what's the relationship there? Also, is there a relationship between happiness and emotional or just, like, IQ intelligence? I feel like there's some badge of like, if you're unhappy you must know more and therefore, you're smarter.

Laurie: That's interesting. I don't know of any data that have looked at IQ and happiness. My guess is there's probably not the relationship that you're looking at. But there is definitely a relationship between happiness and optimism, obviously. I think optimism is sort of part of our general happy life. And the good news, based on this question, is you can in fact learn these kinds of things.

The fastest thing to do is really try to just train your brain to pay attention to good things out there. Our minds are naturally tuned to negative things, the yucky stuff out there, the griping. But we can tune our minds toward positive things. You can focus on what you're grateful for. Another practice that I've been into lately, which I talk about on the podcast, is focusing on delights. Sometimes gratitude can feel sort of cheesy, but you can focus on things that are delightful out there: the sunshine, that's delightful; the fact that coffee exists, that's delightful; some funny video on the internet, that's delightful. Training your brain toward things that you really enjoy that cause delight.

Aside: Okay, so if the term, 'gratitude journaling' conjures up visions of sickly sweetened chamomile tea, just opt for the term delights, which is just like a straightforward, good cup of coffee. Actually, for years my husband Jarrett has cited a short tally of favorite things. His are lavender soap, coffee, and sandwiches. He says just thinking of those three things and letting his mind wander to more, helped him during a really deep depression. So, gratitude journaling, delights, whatever you want to call it. Jarrett calls his, his "Do Not Kill Yourself List," which is kind of like the Miami Cola Bang energy drink, of a gratitude practice branding. Would you agree?

Jarrett: That's my favorite Bang flavor.

Alie: Is it really?

Jarrett: Miami Cola. [*Alie laughs*] That's on the list.

Laurie: Again, your brain is going to focus on whatever you give it data for. So, if you give it data about things that you're feeling really grateful about or that are really delightful, that's what your brain is going to start noticing.

Alie: [*laughs*] I love that you're constantly filling evidence folders for like, "things are shitty" and "things are good." It's like, what are you putting in your evidence folder, pretty much.

Laurie: And it's not just what you're picking, you're training your brain to look for that stuff. In my podcast, I interview this fantastic guest, Ross Gay, who is a poet and an essayist who has this book called, *The Book of Delights*, and he decided that for every day for a year after his birthday he would write an essay about something that delighted him. And he talks about how at first, he was really worried, like, "Am I going to find things that really delight me?" And he said that, you know, even just a week in, he'd tuned his mind to find these things. So, walking down the street he'd be like, "Oh, that dude's T-shirt is delightful. That cat on the street is delightful." He just kind of shifted his perception and tuned his mind more toward the good things than the bad things.

Our brains evolutionarily are naturally turned toward the bad things; makes sense, you want to see the tiger that's going to jump out at you. But we can control that tuning and just by taking some explicit work to pay attention to the thing we're grateful for, to the things that delight us, to the good stuff out there.

Aside: So yes, Ross Gay, *The Book of Delights*. And again, check out Neil Pasricha's work and his Awesomeology episode. Another fun project... start a private Twitter, just for yourself, and chronicle delights of your own, or a private Instagram account, or something.

Also, I should note that in recording this episode, the internet dropped out a few times so I had to email Dr. Santos a new link during it, and she had an autoreply message explaining that she may not write back. It explains that she gets more than 100 emails a day and it reads, in part:

Keeping up with that many questions/requests meant that I was hurting my own time affluence and having less time for the important projects I really should be prioritizing. So, I am currently trying my own personal well-being experiment. I'm going to try to practice what I preach and reduce the amount of time I usually spend on email. Thanks for your understanding as I try not to overcommit and protect myself from burning out.

Augh! I love her. Totally solid, major props, for walking her talk. She's the best.

So, ask smart people not-smart questions, and don't be afraid to seek out happiness where you can find it. You absolutely deserve it. And without self-care and managing mental health wellness, we can't help others fight the good fights. So, that is a reminder to you, also to me. Summer is far from over too, it's not too late for me to hustle; I can still cover Batology which, did you know, is the study of brambles, to learn the intricacies of raspberries and blackberries. Man, I love a bramble. We're also really overdue for a Hydrology episode about water. And you know what? Why don't I know jackshit about Heliology? Because we've never done an episode on the sun, and we need it. Which also brings us to Melanology, which is an actual science of skin pigment. I want to hear everything, I want to do that one too. So, perhaps this summer I can deliver a few of those to you, we'll see what we can do.

And thank you for hanging out with me on your vacations or just your regular weekday workdays. Thank you to every patron at Patreon.com/Ologies for supporting the show. Thank you to Erin Talbert who admins the *Ologies* Podcast [Facebook group](#), with assists from Boni Dutch and Shannon Feltus of the comedy podcast, *You Are That*. Hello to the *Ologies* folks on [Reddit](#). Thank you to Susan Hale who handles [OlogiesMerch.com](#) and so much else. Noel Dilworth does our scheduling; Emily White of The Wordary makes professional transcripts. Caleb Patton bleeps episodes so if you hate bad words, you can listen with them bleeped via [AlieWard.com/Ologies/Extras](#).

We also have 13 episodes so far that have been trimmed of filth and truncated for little attention spans. Those are called *Smologies*, those are in your feed, they're also all available at [AlieWard.com/Smologies](#). Thank you, Zeke Rodrigues Thomas for heading that up with assists from Mercedes Maitland and Steven Ray Morris. Kelly R. Dwyer does website design, she can do yours too, she's linked in the show notes. Nick Thorburn wrote the theme music.

And huge thanks to Mercedes Maitland and Jarrett Sleeper, both of Mindjam Media, for pulling all these clips for me as I had this dream of a balmy compilation. I'm married to only one of those two people but you're both wonderful.

If you stick around to the end of the episode, you know I tell you a secret. Lately, y'all have been tuning in to hear how my dad is doing. Just to catch you up, he has a blood cancer called multiple myeloma, you can listen to the 2018 Hematology episode about it, and that led to more cancers including lung tumors and we found out he had a malignant brain tumor in April. And after fighting for 9 years, his oncologists decided it's time to stop treatment. So, we're with him now, during his hospice. Jarrett and I have relocated to a mattress in my sister's hallway the last few months. We're by his side with him and my mom and my family, just to soak up time and help him with what he needs.

It's been beautiful, it's also been the hardest time of our lives. Hospice has ups and downs but we're lucky right now, he's feeling really present, he's getting up by himself in the middle of the night without ringing his bell for help, despite our begging him to. We had a really good Father's Day, we made him his favorite rhubarb pie; only rhubarb, no strawberries allowed in Grandpod's rhubarb pie. And we gave him a pomegranate tree, it's his favorite fruit for some sentimental reasons... story for another episode.

But it's been a really rough week for me personally and in America for any people who do not want religion-based minoritarian rule in their highest courts. And I speak from my own past experience just when I say it can be a lot easier to chant for hours at a protest than it can be to stand up to blood relatives and tell them how their votes oppress people that they will never meet. So, if you'll shout it at a march or you'll repost it on Instagram, then consider dropping some facts in the fam chat if you have a mixed political family, like I do. I'm kind of the blue sheep in a red family, if I'm being honest. Umm... it's a pretty fucked up time.

Just all around, my voice is hoarse from crying, and maybe from COVID, as my sister just tested positive after hanging out with us and my parents. So... little stressed but we're getting through it day by day.

Another secret, if you want one, is that when it comes to mango, I like it real crunchy. I like my fruit crisp and I like it under ripe, even a little tannic. And my favorite part of a pineapple, if you must know, is that fibery core that everyone throws away. Give it to me, let me gnaw on it like a rope dipped in sugar. It's weird, I don't care. That's all my secrets, you guys. [*deep breath*] Take care, good day. Berbye.

Transcribed by Aveline Malek at TheWordary.com

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