

# Wildlife Ecology with Corina Newsome

## Ologies Podcast

June 8, 2021

Oh heeey, it's the contact lens that's definitely in the wrong eye, Alie Ward, back with a long-awaited episode. I've had my sights set on this ologist, I've been waiting to have her on, literally for years. She's a busy dame. She's all over the news. She's leading movements. She's communicating science. She's tromping through saltmarshes, checking on little birdies, collecting data, and then just getting a dang master's degree at it.

This ologist got her Bachelor's in Zoo and Wildlife Biology from Malone University and just got her master's studying bird conservation at Georgia Southern University! I need to calm down. I need to chill out. I'm so thrilled for her. I'm so excited about this. We finally got to do this interview now that she has, like, two seconds to breathe. I have followed her on Twitter for a few years and I've always had just a huge science crush on her. I've always wanted to have her on the show. She's hilarious, and warm, and smart, and she's so dedicated, so informative.

We've done ornithology already, and I wasn't sure which ology would be the most appropriate, so we chatted before we rolled on the interview:

**Alie:** When people think of wildlife ecology, I think a lot of them are like, "I love being outdoors. I love working with animals. How can I be a wildlife... without being a veterinarian, or someone who ends up on a tiger documentary?"

**Corina:** Right. Right.

**Alie:** Anything under that umbrella, or the wildlife ecology umbrella, would be totally cool.

**Corina:** All right, cool. We can focus in on fieldwork, yeah.

So, there's a lot of talk of fieldwork, and also there's a lot of cackling on my end because she makes me cackle a lot. But before we get to the interview, a quick thank you to everyone who submitted questions for this ologist at [Patreon.com/Ologies](https://patreon.com/Ologies). It costs just a dollar a month to join that behind-the-scenes family.

Thank you to everyone who sends the podcast to friends, and family, and exes, and Bumble matches; everyone who subscribes, that helps so much; and everyone who rates and leaves reviews keeps it up in the charts. Also, you know I creep on them like someone hiding in a bush with a pirate telescope, and then I pick one to read each week. This week, thank you to Radar the Cat, who wrote:

*Imagine getting a pedicure with your girlfriend while howling with laughter about toads pooping. You will laugh out loud at the most unlikely, hidden, and obscure scientific marvels. And cry sometimes too.*

So thanks to everyone who left reviews this week. I saw them all. They warmed my paternal heart.

Okay, onward. Wildlife Ecology. What is this field? What is it? So, it involves studying animals in their natural habitats, and figuring out what effect people have on animals, and then coming up with scientifically sound solutions for conservation and to protect them. So, critter learners and protectors. Some wildlife ecologists are out in the field a bunch checking on their animals, and one thing I love so much about this ologist's sci-comm is how she brings us into the field with her.

In this episode, we talk about seaside sparrows, wetlands, saltwater marshes, fluffy mud, getting laughed at by birds, sweat, swamps, nests, snails, whether or not you should ditch your birdfeeder, midnight minx, and practical fieldwork dilemmas that will shock and maybe change you forever. So gear up, hunker down, and get ready to observe the majesty of bird nerd, ornithologist, zoologist, one of my favorite scientists, and someone I'm honored to possibly introduce you to Wildlife Ecologist Corina Newsome.

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**Corina Newsome:** My name is Corina Newsome and I use she/her pronouns.

**Alie Ward:** Awesome. You are a wildlife ecologist, correct?

**Corina:** Yes, yes indeed.

**Alie:** How many ologists have you been? Because you've also been a zoologist, you're an ornithologist... Let's count. How many can we call you?

**Corina:** It's been a few ologists. I think I started out in the realm of wildlife messing with beetles, like, a beetle-ologist. There is a more official name for that. [*computer voice*: "*Coleopterology: study of beetles and weevils. Say it with me now.*"]

Then I moved over to zookeeping and focusing on zoo science, so you know, zoology may be a more appropriate term there. And now ornithology has become really my whole life. So, most of the work that I do now, whether it's field science or it's community outreach, it's centered around ornithology.

**Alie:** When did you, kind of, end up, if you will, migrating down that ornithological path? How did you feel when you started in the zookeeper world? Can you tell me a little bit about that?

**Corina:** So, birds really started *singing my name* – we're just on a roll with the puns here! – when I was forced to take ornithology in undergrad, which I was definitely not excited about because I knew nothing about native birds, and that's what the class was focused on, a field class. But when I got into the class and I was introduced to the blue jay, something about the blue jay is so magical. The beautiful colors, the mimicry, the cognition, all of it together. I really, you know, immediately was fixated on birds and have been chasing them ever since. So, even though I didn't necessarily study birds until further down the line, in grad school recently, starting in 2018, that's essentially when my migration direction was oriented. That ornithology class set me on my course.

**Alie:** Was it something also about their behavior? Blue jays are corvids, right?

**Corina:** Mm-hmm, yeah. And I know you know Kaeli, who's the corvid queen.

**Aside:** See the 2018 Corvid Thanatology episode with Dr. Kaeli Swift, aka @CorvidResearch on Twitter. We discuss crow funerals. They sometimes involve small orgies. With the dead? Yes.

But yes, along with crows and ravens, blue jays are a corvid.

**Corina:** Corvids in general are simply the most incredible birds, and they're also the birds that I think get the most hate. Between the ravens and the crows, people think the black birds are, kind of, bad omens, associated with death. Think about *The Birds*, the Hitchcock movie. All of this, right? [*clip from The Birds*: "*Birds are not aggressive creatures, Miss. They bring beauty into the world.*"] The chaos.

Some people don't like blue jays because they can oftentimes scare other birds off the feeder because they either directly, kind of, just push birds off, or they can mimic the sounds of raptors nearby so the birds think there's a threat that's not there. You know, they can very much manipulate their environment to get access to the food. But to me, that's just a mark of their incredible cognition. There's no end to the tunnel that is corvids. And we're always learning so much about them. They can use tools. They can *build* tools. There's just really no limit.

**Alie:** I know that they always take the peanuts that I put out for the crows and the ravens first. They're always like, "I'm in and I'm out." And they get all the peanuts and I'm like, "Well, I was leaving those out for whatever bird got them first. So, blue jays, you were less afraid to get the peanut. Peanut is yours."

**Corina:** *[laughs]* Listen, every picture you see of a blue jay, there's a peanut or two in its mouth, so that makes sense to me.

**Alie:** Like "the ballsy bird gets the nut." I don't know. There's something... There's a new adage.

**Corina:** *[laughs]* That's funny.

**Alie:** But what... Like, tell me a little bit about where you grew up. You're from Pennsylvania?

**Corina:** I'm from Philadelphia, which, in theory, is in Pennsylvania, but if you're from Philly you do not associate with Pennsylvania. [*"I got no idea how she ended up in the wooter!"*]

**Alie:** What is it like for someone growing up in Philly? What kind of wildlife or what kind of animals or zoos did you grow up with?

**Corina:** So, as an adult, I'm realizing that there was a lot more wildlife around than I was aware of. I didn't really have environmental educators in my academic or, you know, educational experience as a kid, so I was not aware of it. But apparently, we got everything from coyotes to big ol' snapping turtles, to all kinds of birds. Growing up, the only thing that I really noticed were, like, the robins every few years. When they would migrate through, my mom would be like, "The robins are back!" And that was really all I noticed about the birds.

And of course, we would occasionally see a nice gray squirrel. We also would find these brown little snakes, which I still don't know what they are. In my memory, they're just seared in my mind as a brown snake that we would find in a field. So, I didn't think there was a whole lot growing up, but apparently there is. But we do have a really awesome zoo called the Philadelphia Zoo, which is the first zoo in the country, actually, which is not great, historically, right?

Zoos did not start out as, like, honorable institutions whatsoever, for people or wildlife. But they are now real conservation leaders in the realm of wildlife conservation, and that's actually where I got my start in wildlife conservation when I was offered an internship at the zoo. There was a sister or friend from my church who was the lead carnivore keeper at the Philly Zoo, *and* she was a Black woman from my general neighborhood, and it was just... It was almost like my stars aligned and that's how I ended up getting through the gates.

**Alie:** And she was a carnivore keeper?

**Corina:** The lead, oh yeah.

**Alie:** The lead carnivore keeper! Ah! What kind of meat freezers were involved?

**Corina:** [*squeal!*] She took me behind the scenes to show me literally everything, from the meat freezers to the stacks of paperwork, to breeding endangered carnivores. She specialized in giant river otters, actually.

**Alie:** Oh my god.

**Corina:** Yeah, and I still have a note in my purse that was... my god, that was ten years ago. She wrote a note for me when I was 18, like, "If you want to study giant otters," because I was really into it, she's like, "Call this number. It links you to South America to this woman who..." I have that note with me to this day, just in case the birds turn on me. [*laughs*]

**Alie:** [*laughs*] But what a passport into, like, "If you're into this, there's a home for you."

**Corina:** Seriously. I can't ever forget it.

**Alie:** Did you ever get to put on the headset and be like, [*as if over a loudspeaker:*] "And this is the river otter, Gerald."?

**Corina:** You know I did! [*laughs*] You know I put on that mic! Yes. So, whenever I had the opportunity to, like, either yell or put on some sort of voice amplifier, I absolutely did it. It was weird because I was... I lied my way through the interview for that position. They're like, "Do you like talking in front of people?" I had never spoken in front of a crowd of more than five people in my life. I was like, "Oh I love crowds!" And they're like, "Do you like kids?" I can't stand kids. Couldn't put me in the nursery at church. Do not put me near a child. I'm like, "Yes! I love the children!" And I got the job!

I went in shaking and sweating, but by the end of my first internship, when I tell you the microphone, the amplified voice, me gathering crowds to tell them about... Look, that was where I thrived. Yeah.

**Alie:** What did you love so much about it?

**Corina:** I started to realize that excitement was infectious, so I was never faking how excited I was about the information I was sharing. I realized that when I was very obvious about how excited I was... At first I tried to be reserved, but when I really started to, kind of, let it out and let it loose, I was like, "Everybody in this room is excited now! Okay." So it just kept feeding my energy around the educating of the public about wildlife. So yeah, it was incredible.

**Alie:** You still, obviously, are doing that on Twitter and on Instagram. Like, you're one of my favorite science follows. You're one of those, like, very much "#FF this person immediately, enrich your timeline. You are welcome."

**Aside:** Seriously, follow @Hood\_Naturalist on all platforms. You are welcome in advance. Corina is amazing.

So, she got her Bachelor's in Zoo and Wildlife Biology and went back to the zoo route doing environmental education there. But she says that life can be tough as you're working your ways up the ranks in zoos. Though you may love the job, you could've just graduated college but are making nine bucks an hour. So, she'd already begun doing research as a senior in college, answering questions about carnivorous beetles, and she decided to head to graduate school.

**Alie:** And you know, in a zoo, you take animals and you put them in your environment. But when it comes to fieldwork, you were doing the exact opposite, pretty much, by nature. What was your first, kind of, fieldwork expedition?

**Corina:** So, my first entrance into fieldwork was actually in graduate school. So, after graduating undergrad, I had worked as a zookeeper for almost four years. And you know, as I said, always kind of oriented toward birds. I was like, "Whatever I do next, I want it to be about birds and studying birds." So when I started applying to grad school and looking for an advisor, I found one who was studying the kind of research I wanted to do, and she was in south Georgia.

So, I did a phone interview with her, and she saw on my résumé that I had never been in the field before, which can be concerning, particularly in a place like south Georgia where it's super hot. The insects are other-worldly, and there's just a number of factors that might scare someone away. But she took a chance on me, right?

So, this city girl, you know what I mean, who's really not about surprising bugs, went down to south Georgia and started fieldwork. So, I took the call, I answered the call, and I went down to south Georgia to start studying birds. And my first field season, I have to say... So, I was living in... It's bizarre because it's not just the work in fieldwork that can be challenging, exciting... right? Also, the field housing, where you live to do the fieldwork, is its own plotline.

**Aside:** Buckle up for a situation many of us haven't considered when it comes to the challenges of being a wildlife ecologist.

**Corina:** So, I was living, like, on the coast of Georgia, studying this little bird called the seaside sparrow, and I was living on this massive property. It was actually a previous slave plantation but that's a whole 'nother thing.

**Alie:** Oh my god.

**Corina:** But it was 5,000 acres of straight-up woods, and I was in a small cabin in the middle of it. Like, smack dab. And I had never been in the forest in my life for that long, living subjected to the whippoorwills and the chimney swifts [*birds sounds*] that were procreating in the chimney. You know, both birds, right? I love them, but when I tell you they got into my head... Alie, fieldwork is a whole... [*laughs*] It's its own world.

**Aside:** Let's back up a second.

**Alie:** How... I mean... This is a really naïve question, but how in the hell did you end up staying on a former slave plantation? Who decides that??

**Corina:** Yeah, so for graduate students or undergraduate students, when you're doing fieldwork, you know, not close to where you live, you have to find field housing. And usually, you can either pay for it, like rent an apartment or something like that. But if you don't have money for that... I don't have money to pay two rents, right? I had my own apartment near my school. And my professor, it was her first year. Usually, professors don't even take students in their first year, but she took me.

So, there wasn't really money to pay for me to live somewhere else. So, there is this massive, government-owned wildlife management area where they house people doing research on Georgia's coast. And it just happened to be an area that was reclaimed from the previous owners of it. And before that, it was a slave plantation. And because of the weird culture and, like, very toxic and upsetting culture on the coast of Georgia, they want to preserve a lot of the structures, and they want to preserve all the houses, and they want to preserve the way it used to be. And I'm just like, "???"

So, I was just thankful to have somewhere to live, but I was like, “This is, kind of, very disturbing.” You could literally see the houses where, like, my enslaved ancestors were forced to live to work this land that I’m now recreating on and having a blast looking for birds, and... you know what I mean? It was surreal, and disturbing sometimes.

Obviously, it prompted me to be pretty reflective about the fact that I was doing what I was doing, especially where I was doing it. No one seemed fazed by it. Like, no one I ever spoke with there said anything about it, but I knew what was going on. It was very obvious. It was weird. I still haven’t even fully processed that situation. Yeah, it was disorienting, a little.

**Alie:** Were there any other people of color that were doing fieldwork with you? Or was that isolating doubly, from a social level as well?

**Corina:** The young woman who was helping me collect data that summer was a Black woman, so we were kind of weathering it together. And I told her before she moved there, like, “Hey, this is what’s up.” My advisor also did the same thing. Before I agreed to even be in her lab, she was like, “This is where the research is happening. This is what I’ve seen. This is what racist white people have felt comfortable saying around me when I’m down here.” She gave me the whole rundown so I didn’t go in, you know, not knowing what I was getting into.

We basically, like, stuck it out together and were extremely cognizant of the way that white people were, kind of, interacting with the land and seemed oblivious to its history, or at least undisturbed by it. But yeah, it was kind of like we had each other’s backs out there.

And the wild thing, Alie, is that the following year, 2020, this past summer, I was going to live there again but they were going to put me in the actual house where they had the enslaved people. That’s where I was going to have to live. And I was like, “Y’all have lost your minds!” Like, man... The whole situation is just very unsettling down there, to be honest.

**Alie:** Yeah, I remember you posting about that and being gutted that that was another thing you had to consider, in the wake of a pretty tense election year as well.

**Corina:** Yeah. So, thank you, because I didn’t have to live there because you and the ologites... Wait, is that what we’re called?

**Alie:** Yeah!

**Corina:** Okay, okay. I thought I messed it up. Really rallied behind me, donated money so that I did not have to live in that... You know what I mean? Like, that was going to be awful. And I was able to stay in a safe place, so I’m very, extremely grateful. So grateful. Yeah.

**Aside:** So yes, ologites may have seen Corina’s post re-grammed last summer. And for as much as social media can suck a lot of us dry on the day-to-day, just knowing that we can use it to rally around someone who deserves better is really powerful. So thank you to all the ologites who saw that post and who tossed in a few bucks to get fellow ologite and ologist Corina into better housing for fieldwork. It would be so amazing if people getting a master’s didn’t have to pay double rent or stay somewhere dangerous or traumatizing.

But yes, when you think about a wildlife ecologist, you may envision things like test tubes, and pipettes, and butterfly nets. But the day-to-day realities can be much more complex.

**Alie:** When you’re doing fieldwork in south Georgia, or wherever you are, can you tell me a little bit, like, what is a day like for a wildlife ecologist? I’m picturing: Your alarm goes off at 4:30.

You are dressed with some sort of rubber pants on. And you have a Thermos of coffee. By 5am you're out the door. True or false?

**Corina:** [*laughs*] That is true on some days. However... Actually, no coffee because you'll get the runs in the marsh, and you don't want the runs in the marsh.

I was working in coastal saltmarsh, tidal saltmarsh. High tide happened twice a day where I was on the Atlantic coast. So, your life is dictated by the tides. And high tides shift by an hour every day, and you don't want to be out there on either side of the high tide. You could very easily drown in, like, two feet of water because of the way the marsh mud is set up.

Because when you're walking in the marsh, you are in mud all the time, but sometimes that mud lets go of you. Breaks your trust completely, and you sink, like, up to your waist. If you're by yourself, which is what I was for a lot of the time, especially 2020, as you try to get out you can sink yourself in more. And this is with no water. Imagine if there's two feet of water to work with, right? You could literally drown.

Anyway, point being, you don't want to be out there near high tide. So, some days high tide was at a certain hour that meant that I had to get up really, really early in the morning. Never before the birds though, so that was good. I don't have to be awake *before* the birds, because they get up early. But right around when birds start getting active at sunrise, which is usually around, like, 5:30, 6am. Some days I would be out there really early if the tides were lowest at that time. And then some days it was like, "Ope. No, low tide's going to be in the middle of the day, where there's not a cloud in sight." No sea breeze. You'll see the sea, but we're not going to give you any breeze.

**Aside:** So, Corina says, it was intense. And news to me, if you zoom on a map of eastern Georgia, and then you zoom in a little further, you'll see that the coastal line isn't so much a line as it's, like, an ombre, a balayage of sea fading from ocean to barrier islands, to estuaries and tributaries that feather inland.

So, toggle your zoomed-in map to a satellite view and you will see patches of tall marsh plants called cordgrass between these threads of creeks and waterways that reach 15-20 miles inward. It's a giant, fertile wetland left after the last Ice Age 12,000 years ago, once exploited for rice farming, but rising and falling twice a day and just teeming with life.

**Corina:** When I tell you... There is no place like Georgia's coast. There is no place like Georgia's saltmarshes. It is *golden* out there, Alie. Golden.

**Alie:** I've never seen it. I don't even know what the difference is between a marsh, and a bog, and a swamp, and a wetland. What is it?

**Corina:** Mm-hmm. So, marshes are a kind of wetland. Oftentimes, swamps tend to be freshwater. Coastal saltmarshes are saltwater. They're tidal, as I said just now, so it is an extremely dynamic environment. Something is always changing, whether it's water flowing... When the tide is going out or coming in, that water is *rushing* in. Watching it is, like, "Am I in a movie?" You literally just see the water pouring into the creeks. Things live here, things survive here, and have adapted to, like, *thrive*, right? Salt everywhere, water rushing in and out constantly in one direction or the other. Man, it's... Yeah.

**Alie:** And obviously there are sparrows there, but what other kind of critters are in there? Like, if you had to give me a who's-who of, like, who's going to be at the saltmarsh party, who's there?

**Corina:** *[laughs]* And this is actually the problem because I will get so distracted out there. I'm like, "I'm here to find nests. I need to find the nests. But look at this crab." So, in the invertebrate section, you have your periwinkle snails, which are apparently not native, which is a problem but very cool to look at. They are in the millions out in the marsh, like, sliding up and down the grass, moving in the mud.

**Aside:** These little sea snails, by the by, are not a purplish-blue like their floral homonyms. I looked it up expecting to find a bunch of blue snails, but they're actually kind of mud-colored, and their name comes from a root meaning 'spiral muscle'.

So, they slide up and down the marsh's cordgrass, rasping fungus off of the blades, which, first off, licking dinner off of a blade, incredibly goth, very intimidating. But the cordgrass is kind of like, "Actually, your spidey tongues are leaving me more susceptible to worse fungus, if you don't mind." But the snails are abundant and very cute, and some people eat them.

**Corina:** They would definitely be at the saltmarsh cookout. You have the fiddler crabs, which are the stars of the show, Alie. Fiddler crabs, as you might know, have one big claw and one small claw, the males do. And they are... Crabs are characters, Alie! And you add one big claw, and it's like, "I could watch this crab all day." Sun beating down, sunscreen melted off me, I could sit here all day. And they come in beautiful colors, and they just have drama between each other. You'll see them chasing each other. It's like telenovela for crabs. So, it's just so much happening in the crab world, and there's different species of crabs out there as well, but fiddler crabs take the cake.

And then in the mammal category, you have not as many different kinds, but you have raccoons, you have rice rats, which are rats that are adapted to this semi-aquatic environment. And mink. Mink are super secretive. They're all kind of secretive, but mink you will probably never see with your eyeballs. I only ever saw them on the camera trap.

But rice rats, they build their nests in the marsh, and I've seen little babies running around. And they kill the seaside sparrow, so in theory I'm supposed to be like, "Ahh!" or whatever. But I love 'em all. I love the rice rats. These suckers can swim too. They swim across a fast-moving river. I mean, B-line across no problem.

**Alie:** Oh my god. I was going to ask, how do they stay out of the tide? But they just don't!

**Corina:** In the tide, right! *[laughs]* They go in it, yeah. They're not playing.

**Aside:** I looked up rice rats, and they look like rats but with a very boopable little nose and a white belly. And also, they'll paddle across a swamp, giving not a fuck in the world, something that your motorcycle-riding uncle is probably too scared to do.

**Corina:** And then in the bird realm, of course, like you said, the seaside sparrow, which is what I studied, but I mean, every size, color, shape you can imagine. Great egrets, which are all-white, yellow beaks. You have roseate spoonbills, which are pink and have spoon-shaped bills. You have wood storks that sound like *[a big passel of birds honking creepily]* death came back to life when they vocalize.

Sometimes you get, like, a tricolored heron, which, they just sneak up on you. Usually, you can kind of hear birds beating their wings around you to, like, warn you they're coming. These bad boys will just be behind you. You don't know it. And they let out a nice heron squawk, which sounds very much like a dinosaur. *[dino-like squawk]* Very interesting creatures out there.



**Alie:** And what kind of... I don't even know how you start your fieldwork, because like, how far are you tromping out? And are there nest sites that you're like, "Okay, that's Nest #26A. This is Nest #26C..."? How do you even get the lay of the land?

**Corina:** You've got it spot on. So, just to give you a picture of what the marsh looks like, there is a big ol' ... you know, all this grass that's lining, basically, the ocean. And there's these little creeks that cut into it from the "big water" around the marsh. And seaside sparrows put their nests on the creek, and there's usually one pair in there, for one nest at a time, per creek.

**Aside:** So, think of the creeks in the marsh like freeways, and saltwater sparrows are kind of making their nests on the shoulder of the road. Just like, "Beep-beep. Pull over. Make a house. Have some babies."

**Corina:** So, it's not just, like, walking directly out into the marsh, it's walking up and down each side of these creeks looking for nests, which I actually... You know what's so funny? While I was doing this, the research, I was like, "How far am I walking every day?" But I was afraid that if I actually knew the number, I would, like, not be able to do it anymore because I would be freaked out. So I forgot to calculate how far I was walking every day. I'll have to find that out, but it's a lot. *[laughs]* A lot.

And usually, there are about four to six hours that you have between high tides where the water is, like, not dangerous. So, in that five-to-six-hour period, I would be walking up and down these tidal creeks, usually about 15 of them or so, looking for nests.

And just like you said, each one is labeled with some kind of number/letter combination, GPS marks, so I know where it is. You know, some measurements are taken, like, "How many eggs are in here? How high is this nest off the ground?" because they build their nests kind of elevated in the grass. And looking for these nests feels basically impossible. I don't know even how I graduated. They're made of marsh grass and they're hidden *by* marsh grass. So it's literally, like... There's nothing about their nest that isn't the marsh, but you're looking through the marsh. *[laughs]* You know what I mean?

**Aside:** So the birdies make these nests, sidenote, with an overhanging dome to hide the off-white and chocolate-speckled eggs, because when the tides rise, their little eggy babies might just float and bob away for a bit! So, the top of the dome nest keeps them from drifting off.

Just imagine: You're a new parent, the bassinet containing your triplets or quadruplets just periodically floods from the bottom, like a rowboat with a leak. Naturally, smack a top on there so they don't flood away when you're off eating bugs.

But when you're out doing fieldwork looking for nests made of grass *in* the grass and you can't see them, what other senses can you use? I would give up and use my blood as money to consult an oracle. But Corina's a better field scientist than I am.

**Corina:** So, I would have to use the behavior of the parent. So, I'd be walking through the marsh, and as soon as I heard this, like, chipping sound... It's like, "Chip. Chip-chip-chip." *[clip of seaside sparrows chirping in the background]* I was like, "Okay, it's a game of Marco Polo now." So I'm moving around, making some sounds to, kind of, prompt the parents to basically let me know when I'm close, and they would get real excited when you get close to the nest, and that's how you zero in on its location. And I have literally walked in circles for three hours before looking for a nest because I heard... Yeah.

**Alie:** Oh my god.

**Corina:** There have been some extreme Marco Polo standoffs out in the marsh. But yeah, that's kind of what it looks like to go looking for those seaside sparrow nests.

**Alie:** Do they have a vocalization that means that they're laughing at you?

**Corina:** Listen. When I tell you, by the end of my field season, I was convinced that every animal out there was against me and that the seaside sparrows hired them... So, I wouldn't be surprised if they had "laughing at me" sounds. I'm sure they did.

**Alie:** And what are you looking for? Are you looking to see, like, how many eggs do they have, has anyone parasitized them? What are you writing down? And is it a clipboard, or a Moleskine, or your phone notes?

**Corina:** Good question. So, my overarching question for the seaside sparrow was understanding nest predation and how it varied across the landscape as you get closer to certain variables, like closeness to nearby roads, or closeness to the water body that the marsh was lining, to see if there was a spatial pattern to where nest predation threat was highest.

And so, I would use a Rite in the Rain notebook that is waterproof, and thank God because it literally just caked in my sweat. My advisor was like, "Corina, how do you do this?" I said, "Look, the marsh done it to me first, okay?" But yeah, so I would write down all the information I was collecting; nest height, number of eggs. And I would go back every few days and check on nests that I had already found to see if there had been any nests lost. And some nests even had video cameras on them so that I could identify the species of predator that was depredated those nests.

**Alie:** What was eating them?

**Corina:** When I tell you drama unfolds... I thought the crabs had a monopoly on the drama. Absolutely not. [laughs] So, I was studying specifically mammalian predators, but obviously, when you have a camera on a nest, you get all of the plotline. So, I was finding mammals, like the ones I mentioned, raccoons, marsh rice rats, as well as American mink. But, come to find out, marsh wrens... Wrens are known for being extraordinarily territorial during the breeding season. They will do anything to keep control of the resources around their nests, the space.

So, one day... And my advisor was like, "I think marsh wrens are killing seaside sparrow eggs, but I don't know." She'd never put a camera out there. I put a camera out there... Alie, when I tell you... I saw a marsh wren fly over to the nest... I said, "Wait!" So, I'm just watching hours and hours of video, right? I'm like, "What!" It seemed like it had been watching the mother because it came as soon as the mother left the nest to, I assume, go find food.

So, first, it lands on the edge of the nest and it's looking at the eggs. I'm like, "Whatchu about to do?" It starts, like, with its whole chest, poking holes in the eggs. I'm talking about, like, BAM-BAM-BAM. And it's not just one. One would've been more than enough to kill the egg. I'm talking about BAM-BAM-BAM-BAM. And it doesn't stop there. It starts *drinking* the egg. So I'm like, "Okay, now you're a predator as well." And then, Alie, it picks the egg up and throws it out of the nest.

There had been several instances where there would be an active nest with several eggs in it, and then I would come back and check on it the next time, and it wouldn't be like there were egg fragments, and you know, a yolky inside like a rat had made a meal of an egg.

They would just be gone. I'm like, "What...?" I could not figure out why that was happening. Turns out, these little wrens that are half the size of a seaside sparrow, they are competitors that stop at absolutely nothing. Nothing at all.

**Aside:** Bam- Killing. Bam- Drinking. Bam- Getting rid of the evidence. Wren life is like a saltmarsh *Mad Max* apocalypse film about a zombie high on flakka, who was also undercover in the CIA, which is a film, heads up, I would pay to see.

**Alie:** Was this the first time that it had really been observed because you had camera traps?

**Corina:** That's right. Yeah. So, other wren species, like maybe Carolina wrens and I think house wrens, have been observed doing this kind of behavior where they're killing eggs, sometimes killing the already-hatched offspring of even others of their own species to, kind of, maintain a monopoly on the resources. But it had never been noted in the marsh wren.

We all assumed that's what was happening. Like, "All of your cousins are doing this. You're probably doing it too," but it had never been recorded before or published before. So, I think I'm going to try to publish that observation just to be like, "Yep, what we thought was happening, was happening with the marsh wren."

**Alie:** And you know, do wildlife ecologists... Do you ever have to help control invasive populations, like with starlings or anything like that?

**Corina:** So, some people are tasked with the management of invasive species, and sometimes even the management of native species. For example, predators, right? If there's, like, particularly vulnerable populations of, say, some shorebird. But wildlife ecologists and wildlife managers might go out and set up, basically, physical barriers to prevent even native predators, like a raccoon or something like that, from being able to access the nests of these birds just to add a layer of protection because their populations aren't doing well. So, there's definitely times when that kind of management goes into play.

The starlings want nothing to do with the marsh. I think the starlings looked at the marsh and were like, "Y'all got that. We've got everything else, y'all got the marsh." So I've never seen a starling out in the saltmarsh or anywhere near the marsh.

**Aside:** Starlings; dark, iridescent, and white-spotted birds whose beaks are dark in the winter and yellow in the summer. And they're invasive in the US. They're all related to 60 that were set loose in Central Park in the late 1800s by a German guy named Eugene Schieffelin, who also introduced the house sparrow to the US. Thanks, *Eugene*.

But those 60 released starlings now number in the hundreds of millions across all 50 states. They do a billion dollars in damage yearly to crops and buildings, and they tend to gather in these big, noisy flocks, whose swooping flights look like a lava lamp in the sky, or airborne choreography. They're called murmurations.

I've also heard murmurs that they edge out native species so much that some ecologists straight-up kill them when they see them. No hesitation. So, where can you see them? Apparently, not in the marsh. They're not up for twice-daily flooding where there are very few pizza crusts to peck at.

**Corina:** I only really saw them in the dollar store parking lots near the marsh.

**Alie:** I just learned about them recently. I was like, "What's this pretty, iridescent bird?" I had no idea that they were, like... that there was so much drama with it.

**Corina:** Ooh, yeah.

**Alie:** But speaking of fieldwork, can you tell me a little bit about mosquitoes? How do you do your work without constantly checking to see if there are things biting different parts of your body?

**Corina:** It's actually not mosquitoes... Mosquitoes are their own thing, but sand gnats, biting gnats, are the thing. They're it. Right? And they're so tiny... Usually, you can put a mosquito net on to deal with mosquitoes. These are so small that they fly right through any mesh that you might think about putting on your body. So, you basically have to just deal. You just have to let them eat you. That's it.

So, we would literally have a mist net where we would catch the birds and immediately run out there because the gnats would eat them alive if we didn't. And we would, you know, take the birds out of the net, start processing the birds (meaning, measuring them and taking the information that we needed), and the gnats would literally be on your exposed skin in the hundreds.

One time, my advisor... I was not with her for this, thank the Lord, because I would've made a scene. My advisor was out in the marsh during the winter doing the same thing. Dr. Elizabeth Hunter, shout out to her. I do not know any more badass fieldwork biologist on the planet. She was out there. The gnats, Alie, were on her eyeballs. Biting her eyeballs, Alie.

**Alie:** No! No. No. No.

**Corina:** Yes.

**Alie:** *No.* I would take my diploma; I would give it back to the university. And I would just go and work at Best Buy.

**Corina:** *[laughs]*

**Alie:** I would just be like, "I sell washing machines now. Life change."

**Corina:** *[laughs]* Alie.

**Alie:** Eyeballs??

**Corina:** On the cornea.

**Alie:** "I'm using those eyeballs, thank you!"

**Corina:** *[laughs]* She showed me pictures... Someone was around her and took pictures of, like, the gnats just on her everywhere. Alie, I've never seen anything like that in my life. I was like, "You're going to be really disappointed in me, Elizabeth, because under no circumstance... You hear me?" My plan B wasn't Best Buy. It was actually Home Depot because I'm like, "I shine in orange and I love the wood section," so I'm more than happy to, like, switch over, right?

**Alie:** I mean... Dr. Elizabeth, let's get you some goggles. We're getting you goggles. The best goggles possible. Christian Dior. I don't know who makes the most, like, Louis Vuitton goggles. We're doing it. I don't care if we need to bedazzle them. We're getting you goggles.

**Corina:** *[laughs]* Oh my god.

**Alie:** If people are out there chopping shallots with goggles, this woman deserves them. Augh! That is just...

**Corina:** She deserves the world. Yeah.

**Alie:** Just skin-crawly.

I have so many questions from patrons, by the way, who just love you. Can I ask you some in a lightning round?

**Corina:** Yes!

**Alie:** Okay! Some people just wrote in... This is my favorite, when some people just write in, not with a question, but just, "Big fan of Corina's work." They're just big fans and they follow you.

**Corina:** I love y'all too!

**Alie:** I feel like this is, like, you're reading your Yelp reviews at your funeral. Like, Diana Teeter says: No questions, but I just want to express how awesome you are and just how excited I am for your episode. Just sayin'. There's a lot of love for you.

**Aside:** But before we get to them, let's toss a little cash. Each episode, we donate to a cause of the ologist's choosing. This week, we're pointing the ol' money cannon at Skype a Scientist, which creates a database of thousands of scientists and helps them connect with teachers, classrooms, groups, and the public all over the globe. They give students the opportunity to get to know a real scientist and get the answers to their questions straight from the source.

They also do, like, "Your book club needs a scientist," or your scout gathering. They're great. There are 6,000 real scientists in their database, and they are straight-up wonderful. They were co-founded by your favorite teuthologist, squid expert Dr. Sarah McAnulty. Thanks, Corina, for that. And thanks, Skype a Scientist, for giving groups of curious people access to so many diverse scientists in every field imaginable. We love you. That donation was made possible by sponsors.

[Ad Break]

Okay, back to work *fielding* your questions about fieldwork.

**Alie:** First-time question-asker Johnna McHugh, good question: How many times have you gotten stuck in pluff mud?

I don't know what pluff mud is, but I want to ask you, is that a term? Is it fluffy mud?

**Corina:** Basically. It's like very loose mud. That's a good question. I honestly don't know how many times because after a while it's like your brain is almost on autopilot and you don't even notice when you have fallen. But like, it's a situation where, like, you fall in and at first you feel, almost, betrayed by the marsh. It's like, "I've been out here sweating my behind off and you've got to do this to me?" Eventually, you don't even notice. But you know, you have to Army crawl out of it.

So, you fall in up to your waist, and then you basically lean over [*laughs*] and pull yourself out using grass and other things around you. Yeah, many, many times. It builds character, is what I'll say.

**Alie:** Augh... Do you have to do specific exercises to, like, build up the muscles that pull you out of pluff mud?

**Corina:** Yes, to even just walk. Because the way that I describe walking in the marsh, it's like walking upstairs for six hours. So, I went out there without having trained at all, and I was out there for an hour and 30 minutes, Alie, and I was like, "I can't do this. I can't do it." That was when I first got there and Elizabeth was like, "You might have to do some training. That's what I do." So that's what I did. I literally started running on the treadmill, which is

not a thing that I do. [laughs] I started running on the treadmill, doing the stair stepper, all that, to get my hip flexors right, because yeah, you've got to work out.

There was a period of time after my last field season was over where I had to go back out and just check on something, and there had probably been about three weeks to a month between then and the last time I was in the marsh. When I tell you, I was seeing stars within minutes of being out there, I was like, "Oh, see. Yeah." You cannot let the marsh leave your blood.

**Aside:** And if you're listening to this and thinking, "I love biology. I love wildlife. But my body can't do that," what about disability access for scientists? So, I did some research and I hear that consulting firms need project managers to track and plan fieldwork. There was also something called GIS, a geographic information system that acts as a framework for gathering, and managing, and analyzing data. And we have a really cool episode coming up with a scientist named Emily Ackerman, who is a systems biologist. So, stay tuned for that very soon.

**Alie:** Naomi T is a new question-asker and wanted to know: What's the strangest thing that you've found in the marsh? Have you ever found anyone's car keys, or like, buried treasure?

**Corina:** I wish. I found... There were multiple times where I was like, "[gasp!] Is that a body?" And then it wasn't. I think the strangest thing I've found... Not interesting stuff, but like large things that, like, "How did water carry this?" But I guess water can carry basically anything. Like, *huge* cement blocks, and pipes, and things that seem like they should've sank immediately upon entering the water; the water just brought right to the marsh. So, that's why you want to take care of your watersheds.

**Aside:** A watershed is essentially the pathways leading to the ocean or to big bodies of water. And I always get the word watershed mixed up with *Watership Down*, which was a 1972 novel about some psychic rabbits, which, in writing this aside, I learned, was a story that the author made up on long car rides until his daughters forced him to write it all up in a novel. *And* it was rejected by seven publishers before going on to sell over 50 million copies. So, this aside is your weird, creepy sign to just go work on that thing you want to work on. Just creepin' in your brain: *Go do it.*

**Alie:** Word to the wise, for sure. Paige McLachlan wants to know: What sets a sparrow apart from other birds? As in, what makes a sparrow a sparrow and not a finch, or a swift, or a wren, in this case?

**Corina:** There are a lot of things morphologically about a sparrow that's different from any other songbird. Some of the differences are in diet. So, sparrows are known for eating a lot of plant material. They'll eat both, depending on the time of the year, but they do... They're really good at eating a lot of plant materials, seeds, things like that. Seaside sparrows are different because they do have a really, heavily, like invertebrate diet being in the marsh.

**Aside:** Okay, so remember: the salty, floody marsh is hard livin', man, in some cases. But there's less competition for bug lunches for these small, little brown and cream-colored seaside sparrows.

**Corina:** They also physically look a little different. They have a beak shape that's a little different from, say, a finch or a swift, which is a strictly insect-eating bird. So, a lot of the physical characteristics of a sparrow versus any other bird are about how it finds food. A lot of the adaptations that birds have, physically, are about finding food. Yeah.

**Alie:** Well, Mike Szymanski wants to ask: Why are they so dangin' cute? And also, does the small strip of yellow near their beak serve any evolutionary purpose?

**Corina:** Oh! He knows about the yellow strip! *[laughs delightedly]* I love it! So, yeah. They are definitely slept on. I think a lot of people think of seaside sparrows and they're like, "Oh, it looks like any other sparrow bird." But that yellow band, the yellow blob right above its eye, definitely pops. I don't know that it has any evolutionary purpose that we are aware of. It's such a small feature. I imagine that there is some amount of selection that, obviously, made it stay. Males, I think, have a more prominent yellow spot on their face. And outside of that, I'm not aware of it serving any particular evolutionary purpose.

**Alie:** Perhaps, one day you'll be the first to publish a paper on it.

**Corina:** "What is this yellow stripe about?!" *[laughs]*

**Aside:** So this yellow patch, if you're trying to imagine it, looks like if a brownish bird just had fabulous mustard-colored eyebrows. Just a little pop of color. It's technically called a supercilium, which is another word for eyebrow, which is also the origin of the word supercilious, which means 'haughty'. Also, if anyone is a professional eyebrow scientist or groomer, please call yourself a superciliologist. *[phonetic: super-silly-ologist]*

And I looked up on Google Scholar for a minute, trying to find the function of this mustard-supercilium, when I learned that, in seaside sparrows, it's actually called a superloral, because it doesn't extend past the eye. But honestly, I'm still excited to talk to an eyebrow expert. Maybe just privately, one-on-one.

**Alie:** Matt Thompson had a great question. He is a student studying wildlife ecology and wanted to know if there are any interesting symbiotic relationships with sparrows and other birds in the marshlands. Any of them friends?

**Corina:** Hmm... You know, I like to say friendship... I don't like to say it; this is the first time I'm saying it. Friendships don't really happen in the marsh. It's just, like, mutually assured destruction. *[laughs]*

**Alie:** They're not there to make friends.

**Corina:** When it comes to symbiosis, I am not... With the birds, definitely not any, necessarily, symbiotic relationships. Competition is the main social interaction that the songbirds in the marsh are having, especially during the breeding season.

**Alie:** And on that note of songbirds, Milas R and Lizzy Martinez both wanted to ask... Milas wants to know: Can you give us your best sparrow call? And do birds actually respond if you make the noise good enough? And then Lizzy wants to know: What's your favorite bird sound?

**Corina:** *[laughs]* Um, you know... All right, so the song is too complex for me, but I'm going to give it a try, the seaside sparrow. It's like *[squeaks briefly and then panics into laughter]*. I can't do it! *[laughs]* I'm sorry!

**Alie:** If that were its call, and then at the end it went, "I can't do it, I'm sorry!" The fuckin' best birdcall ever.

**Corina:** *[laughs]*

**Alie:** A bird just busting out laughing in the middle of its call, and someone's like, "Oh, I'm getting hornier every second. *[as if sexually intrigued]* Who's doing that? Who's apologizing?" That was good. It was good.

**Corina:** *[laughing and slightly embarrassed]*

**Alie:** I have a sparrow sitting on the windowsill right now being like, *[intrigued]* “Hey, who’s in there? Who is it?” That was amazing.

**Corina:** *[still cracking up]*

**Aside:** Also, here is what the seaside sparrow does sound like. *[birdsong with a trill, a long note, and garbled notes, repeated in a pattern]* So that’s the little cutie she studies. But patron Katie Courtright asked about birding by ear, and first-time asker Lizzy Martinez wants to know: What is your favorite bird sound?

**Corina:** My favorite bird sound probably... Let me think about this... Yes, it is... It’s not in the marsh, unfortunately, but the wood thrush. It literally sounds like a flute. I’m not kidding. You would think that there is a classically trained flautist behind you in the forest, and you wouldn’t even be uncomfortable with that. You would just be like, “Oh, yeah. That works.” But it’s the wood thrush. They have the most beautiful song on this planet.

*[clip of a wood thrush: flute-like notes in a short melody, repeated]*

**Alie:** I once was in a park and a man playing a saxophone came out of the bushes and just walked through the park. It was kind of magical, but it was also, like... It was a little bit uncomfortable. But I had been... *[laughs]*

**Corina:** That’s not a soft instrument.

**Alie:** It was really... It really changed my whole day. I had been crying earlier that day because I had \$1 in my checking account and I had to have a Big Gulp for lunch. So I went to the park to have some privacy to cry, and some guy just came out of the bushes playing the saxophone. *[laughs]*

**Corina:** That almost... You know what I mean? That seems like a trajectory-changing experience. What in the world?

**Alie:** I know. It was such a good one. But if it had been a bird, I wouldn’t have been mad either.

**Corina:** Yeah, no. I hear you, but the man... the saxophone.

**Alie:** In this case, it was a man with a saxophone.

We got one question from a couple people. Julia Splittorff, Karine Phillion, and Killian Dickson all want to know: Is it true that touching a bird’s nest means that the bird will abandon it entirely? Will you mess with a nest and the parents are like, “We’re out. Bye.”?

**Corina:** That’s a common question. That can be the case for other groups of animals, like some mammals, but birds are not that way. Bird banding and studying nesting is a really widespread field of study, and there has never been any pattern of nest abandonment because humans have handled the offspring. Birds can smell, so birds are able to detect smells around them. I’m not sure if they can tell if it’s on their chicks or not. But yeah, they will come back to the nest immediately, sometimes while you’re there. If you’re making them mad enough they will come and try to shoo you off.

**Alie:** Do sparrows ever abandon nests for any reason?

**Corina:** Yeah, so nest abandonment does happen. In the tidal marsh, one of the main reasons why a nest would be abandoned is if the eggs die, which the mother can tell if they die. So, if a high tide came in and the nest was too low, and they got flooded, and the eggs drowned... And eggs can drown because as they’re developing they breathe through the eggshell. So,



they can survive for about 30 minutes underwater, but if it's longer, they'll probably drown. So, it'll take her a little bit of time, but she'll realize eventually that those eggs are not viable. And she'll leave and start a new nest.

There have been times where I've found a nest that had eggs, and I'm like, "Oh yes!" And I put a camera, and days go by and she never shows up. So that's, kind of, like your cue that those eggs probably didn't survive.

**Aside:** So yes, even birds have rainbow babies, which is a term I just learned this week. It means a kid born after the loss of another baby from miscarriage or death in infancy, according to TheBump.com. I had to look it up. It's so sweet and so sad. So, a lot of hugs going out to all the bird and human parents out there.

Now, from sentiment to... arson.

**Alie:** Karine Phillion wants to know: Do birds really spread fires on purpose? Is that a thing?

**Corina:** Ooh! Yeah. So, I think this is in Australia. I believe this is in Australia, where there's this... I believe it's a raptor. I don't remember what it's called, but they will take advantage of fires. They'll grab a burning limb, like a tree limb that's on the ground that has fire on it, like if there's a forest fire, and they will use that as a tool to flush out prey. So they'll carry, literally, a flaming piece of tree, drop it somewhere to flush out prey. Alie, you may have to double-check on that. But they're... Yes.

**Aside:** Oooh! Okay, I double-checked, and hell yes, birds light fires. Birds light fires! Birds are arsonists on purpose. Are you ready for this?

In the 2019 paper entitled "Intentional Fire-Spreading by "Firehawk" Raptors in Northern Australia," which was published in the *Journal of Ethnobiology*, the authors wrote that they documented Indigenous ecological knowledge and non-Indigenous observations of intentional fire spreading by the fire-foraging raptors black kite, the whistling kite, and the brown falcon in tropical Australian savannahs. And they said, "Observers report both solo and cooperative attempts, often successful, to spread wildfires intentionally, via either a single occasion or repeated transport of burning sticks in talons or beaks."

And the team on that paper notes that most of the data they've worked on is in collaboration with Aboriginal peoples, and they have known this for, probably, 40,000 years or more.

So the birds light fires, and then a bunch of them wait for all the bush critters to run out, and then it's just a buffet. Can you imagine how amped the birds are right before this? Like, "Oh shit, man! Tonight's the night! We're going to do some pyro shit, we're going to eat until my feathers don't fit. It's going to be lit."

**Corina:** Fire-using birds exist.

**Alie:** I mean, if that's not a tool, I don't know what is. That's tool use, you know what I mean?

**Corina:** Right. Like, top of the line. Yes.

**Alie:** I'm going to look that up. Ash Gelhaus has a question: What is your favorite movie and why is it *FernGully*? Feel free to say, "Ash, disagree," if you need to.

**Corina:** It's interesting because *FernGully*, I have not seen that in so long, but whenever I hear the words *FernGully*, I get goosebumps on my back. I don't remember what that movie is about. I just know that as a kid it enchanted the mess out of me. So it might be my favorite movie

and I just don't remember. But in my conscious mind, my favorite movie is *Shrek 2*. I know all the words and all the songs.

**Aside:** So, I have never seen *FernGully*, but it was about rainforest destruction.

Now, Corina's actual favorite movie, of course, *Shrek 2*. So, just when you think people ain't no good, get ready for changes. Because after holding out for a hero, we are accidentally in love with this wildlife ecologist. Corina, you're so true.

Also, go ahead and listen to the *Shrek 2* soundtrack and know that those were titles for most of the songs. Sorry.

**Alie:** Are there any good wildlife ecologists in any movies?

**Corina:** Ooh, like real-life wildlife ecologists?

**Alie:** Or just in general. Like, did any movie get it right?

**Corina:** So, there's this movie called *The Big Year*. So, it's not necessarily wildlife ecologists. They're not professionally trained scientists necessarily, but they're bird enthusiasts who go out looking for as many birds as they can in a year. And when I tell you that movie got the birding community right... Like, ruthless, cutthroat, lookin' for all the birds. Yeah.

[clip from trailer: Narrator: "Steve Martin. Jack Black. Owen Wilson." Steve Martin: "Most people wake up one day. Realize they didn't do everything they wanted to do."]

*The Big Year* got birders right. [laughs]

**Alie:** Oh my god. Well, on that note, Gizelle Martinez, Evan Griffith, Jenny Lowe Rhodes, and Kaitlin Svabek want to know if you have tips for beginning birders.

**Corina:** Hmm... I would say that you should start wherever you are. So, if you have a front yard, or somewhere outside around you where you have noticed that there are birds, figure out what those birds are. There are some free apps that exist to help you identify birds, by the Cornell Lab of Ornithology. So, I would download this app called Merlin Bird ID. It's really, like, user-friendly. It'll present you with some silhouettes, like, "What's the shape of the bird? What's the color? Where are you?" And it'll give you some options with pictures. Highly recommend.

**Aside:** Her favorite apps for birdsongs? There's one called BirdNET that analyzes a birdsong like frickin' Shazam and tells you what it thinks it is. But you have to stop yourself from excited, high-pitched shrieking using it because it's so cool.

There's also another one called ChirpOMatic, which I commend for picking an app name that is just recklessly adorable.

**Alie:** You know, if you're trying to get the birds to come to you instead of you romping around to look for the birds, a lot of questions, including someone who calls themselves Cheese, want to know: Are birdfeeders bad? Jessica Craver wants to know how you feel about them. Yuri Young, Kyle Harper, Silvia T, and Miranda Panda want to know: Why is it okay to feed birds when it's bad to feed other wild animals? What do we do?

**Corina:** So, everyone from Cheese to Miranda Panda, that's a really good question. When it comes to... Whenever you see signs, like, "Please don't feed the wildlife," that's usually because people hand-feed the wildlife. It's like people handing a Canada goose a slice of bread, and that association of "human hands me food" can be very dangerous for people, ranging from geese to bears, and everything in between.

But when it comes to birds, a lot of times... Because birds are so mobile, they move around so much, providing a food source in your backyard isn't bad. Especially because where people are living, they're used to probably be some sort of food source there that no longer exists because your house is there. Not to guilt you, but just to give you an idea. So, feeding birds is good, I think, and it definitely helps to draw birds to your backyard.

If you're interested in some really easy ways to draw birds, hummingbird feeders are one of the cheapest and easiest ways to go. It's literally three parts water and one part white sugar. Boom. There you go. There's your hummingbird food, and it's actually just fine for them. It's good for them. Yes, lots of cheap ways to draw birds to where you are, no matter where you live. Someone told me recently, someone put a hummingbird feeder with just, like, that combination on... They were on, like, the 32nd floor of some high-rise apartment and a hummingbird found it.

**Alie:** Oh!

**Corina:** Yeah.

**Alie:** Worth it. Be careful hanging it, but worth it. You know?

**Corina:** *[laughs]* Right.

**Alie:** Keep the body inside the building. The arm goes out. The body inside.

**Corina:** Please. The hummingbird will find you.

**Alie:** As we're recording this, out my window is a hummingbird nest, and I'm literally looking at two tiny baby hummingbirds with their cute little frickin' faces.

**Corina:** Oh, Alie!

**Alie:** True story. I'm going to send you a picture after this. They're so cute!

**Corina:** Holy crap! Are you kidding me?!

**Alie:** Yeah, it's the best. And I didn't realize it was there until I sat here a couple episodes ago to record. But yeah, I will send you a picture. They're these two little tiny babies *[baby talking]* they're so cute! I had never seen a hummingbird nest.

**Corina:** Holy crap. That's life changing.

**Alie:** I know. I'm just staring at them like such a creep. Such a creep.

You know, a first-time question-asker Joyce Cucksey wants to know: What happens to the ecosystem when they drain a marsh? It's really bad, right? They say: Is there a way to correct it later on?

**Corina:** Mm... That's a really good question. So, deteriorating a marsh through draining or any other sort of mechanism is bad because marshes serve as natural barriers for us. So, for example, they prevent really large storm surges. So if you're someone on the coast, and you live, you know, close to the ocean, you want your marshes to be intact because they're serving to prevent, you know, you getting flooded and storms from being as bad as they could be. They're very important for that kind of ecosystem service.

Marshes can be restored. When it comes to water flow, I have to admit that I'm not entirely sure about what that process would entail, restoring the flow of water into a marsh. But marsh restoration is absolutely something that happens, work that gets done on coasts across the United States. Even doing things like putting oyster shells on the edge of the

marsh to, kind of, shore up the siding, so to speak, of it so that it's strong and serving as a good barrier to the ocean that's knocking against it continually.

So yeah, a lot of ways to do marsh restoration. And very thankfully, that is happening in Georgia and around the country. Essentially, the ocean is creeping further and further toward the land, so there's just less marsh. But it also increases the average heights of high tide, so when you have, for example, seaside sparrows that place their nests in the marsh grass, those high tides are getting higher and flooding becomes a bigger and bigger risk for them. So, they're expected to continue to lose more nests to flooding.

When it comes to sea level rise, that's more of a massively unified effort, right? Like, the world getting their act together, and the United States and other big polluting groups of people getting their act together and making large scale, industrial-level changes to how we treat the Earth. But there are other things, like we can... For example, sea level rise exacerbates some other threats like nest predation, which is actually why I'm studying nest predation. So, we can address the, kind of, secondary issues that happen as a result of climate change, and that's kind of where my work comes in.

**Alie:** Ah. And you know, other people want your job, essentially. They would like to be Corina Newsome. Kinsey Wheatley and first-time question-asker Andy Morrison, and Kaitlin Svabek, big fans of your work. In Andy's words: As an aspiring wildlife ecologist, what's the balance between lab work and fieldwork, and any tips for finding field jobs?

**Corina:** Aww, thank you all for your kind words. I would say that, for me, lab work is data entry. So, all of my data collection, any sort of actual hands-on science that I'm doing is happening out in the field. But, and this is advice that my advisor, Dr. Elizabeth Hunter, shared with me: Don't let data input pile up. Right? I could be out there all summer long, have months and months of data, and then have to sit for *days* and enter this data. So, as you're collecting that data, put it in right away. And then you will save yourself a lot of heartache and that balance will be much easier to manage.

**Aside:** So, like tidying or flossing, just do a little every day to get yourself out of a rotten, horrifying mess later.

Now, how about getting into wildlife ecology? Should you work at a zoo first? How do we have Corina's life, stomping around marshes, watching videos of minks stealing eggs in the moonlight?

**Corina:** I would recommend taking, if you can, field technician jobs. So, typically when you go to grad school and you're doing fieldwork in grad school, that advisor is going to want you to have had experience in the field. My zoo experience and my passion seemed to, you know, make my advisor trust me enough to take on the marsh. But generally, you want to, kind of, look for maybe even seasonal jobs.

And there's a job board called Texas A&M Job Board where you can find a lot of the jobs that are, typically, kind of ecology-based that pop up. Some are seasonal, some are year-round, some are part-time. Whatever, I guess, is best for you, check that job board and get as much experience as you can before... if you want to go to grad school. It is not required that you go to grad school to be a wildlife ecologist, right? There are many jobs at all different levels. But that is one place to look for those jobs and that experience.

**Alie:** That's good to know. Earl of Greymalkin always sends in great questions and had a few: How do we keep researchers safe in the field? What do universities need to do to invest in that? And also, what has it been like from your perspective, looking at Black Birders Week

and how it's taken off? And were you surprised? And have you seen the community demonstrably improve at all?

Just a couple of questions there.

**Corina:** Right. Right.

**Alie:** All great questions. But yeah, you know, obviously I'm a huge fan of Black Birders Week. Have you seen anything change in the last year since you were part of its launch?

**Corina:** Yeah. So, the one thing that I would say... I think, by and large, the most that's happened has been a lot of conversations. And you know, I definitely recognize that conversations need to happen, but the only time I want to have a conversation is if you are writing down what I'm saying, and what we're saying, and what you're hearing and planning to implement, right? Like, otherwise, please don't ask me to speak on this topic, is kind of where I'm at.

There have been some examples of people, kind of, taking it to heart right away. And to me, the best demonstration of that has been the National Wildlife Federation. Like, literally during Black Birders Week last year, they created a pot of money to fund Black, Indigenous, people of color who were interested in wildlife conservation, to fund their internships. Because a lot of times, unfortunately, internships tend to be unpaid. So, they put money, right? This takes money.

They also held a series of roundtables with people from different parts of the country, from different areas of expertise, in wildlife conservation to craft legislative recommendations they're going to bring before Congress to help make birding recreationally, and science professionally, safer for Black people. So they, to me, took off. They hit the ground running with that. So, I've been very grateful for their work. That's been the best example for me.

And then when it comes to *how* to keep people safe, like a few minutes ago we were talking about the fact that they have housing for researchers, coastal researchers and people doing ecology on the coast of Georgia, living on a plantation that very much celebrates that era as opposed to reckoning with it. If you're going to bring students here, tell the truth, right? Don't sit here and glorify what was a horrific time in African American history and Indigenous people's history. So, that is an element of safety, and I think that universities need to invest funding into placing their students and their researchers, when they have to go live somewhere else, in places that are safe; that feel safe and that are safe.

I think that being able to, you know, identify people as professionals out in the field is important. I can't remember who it was on Twitter... She had asked her university, "Hey, can you get big magnets that say the school's name for students to put on their cars while they're out in their field site?" Right? Because I'd be parked by the marsh that's right on the road, and it's just a red Mitsubishi, right? My little rinky-dink hooty. And people see this Black girl out in the marsh, like, "What in the world is she doing?"

I would've loved to have, like, a magnet. It's just easy, right? I don't have to take the school vehicle, I'm not freaking out that I'm going to scratch the vehicle with my field equipment, you know what I mean? I can just take my car and just put a little sticky on there. I'm like, "That's genius!" Because a lot of the danger that comes with fieldwork is people. A lot of the fear that comes with fieldwork has to do with the people who live in those areas. So, making sure your students feel comfortable and are actually safe, and not having to, like, fight for their credibility or having to explain their credibility to people who don't believe them.

**Alie:** 100%. And one thing about Black Birders Week that was so great is it spawned so many other Weeks too, you know? Black in Neuro, Black in Endocrinology. Your whole timeline can change where Black Birders Week isn't just one week. Start following people with so many different kinds of voices, from people who are neurodivergent to #ActuallyAutistic, and Disabled in Academia, and you start to really get to see thoughts all year round. So, I love that about Black Birders Week.

**Corina:** Yeah. I'm a better person because of the people that I have come in contact with and have been able to learn from since then. It's incredible.

**Alie:** Yeah, I'm so excited to see everyone celebrate the second year of it!

**Corina:** Yes! And I just want to say that the BlackAFinStem collective, last year I was so honored to be a part of the organizing. This year I've been watching and participating from the outside, and they have done a phenomenal, phenomenal job. I have learned, as I said, so much. Over and over again. You can never learn enough, right? It's just observing so much, networking with so many people.

**Alie:** The last questions I always ask: What sucks the most? From people, to mud, systemic racism, paperwork?

**Corina:** That's hard because systemic racism always takes the cake, you know what I'm saying? But when it comes to the physical, like, marsh, the thing that sucks the most would have to be the heat and humidity combination. I will never discourage anyone from being a marsh scientist. It'll change your life. You'll be better for it. But when I tell you, that sun... My melanin just walked out on me. It was like, "Mm... We're good." [laughs] My sunscreen would last for a total of six minutes, and I'd be out there for, like, six hours.

And then, the humidity... because you're right on the ocean, but for some reason it just doesn't give you any breeze. I think I said that before, like, "Where's the breeze? I'm supposed to have some breeze!" No breeze. It's just air that's sitting still around you. It's very interesting. But you see dolphins, and sharks, and manatees in the water. So you know, you hardly notice it.

**Alie:** Ah! We need to get you one of those fans that clip on to a necklace. You know? Like a little swamp cooler necklace?

**Corina:** [laughs] Why didn't I think of that!

**Alie:** I'm going to look that up. Don't think I'm not going to google that right after this. Oh my god.

**Aside:** I googled it, and yes, you *can* own a personal neck fan, some with rechargeable mini-USB batteries. Just let a little robot blow on your neck!

**Alie:** What about the best thing about fieldwork? Like, the thing you love the most, or birds?

**Corina:** The thing that I love the most about, I guess, bird fieldwork, is that... Well, I mean, fieldwork in general... because even though birds are my focus, like I said, I get distracted by every living thing out there. You are peeling back the... It's like you're getting, like, privileged with the opportunity to see things that people don't usually get to see about the life of birds, the life of whatever wildlife you're studying, and you know, different technologies, and different survival strategies have allowed us to be able to enter these spaces like saltmarshes without drowning, and equipment to video monitor and see what's

going on at night when we otherwise wouldn't be able to. It's like, "Wow." You get to peel back the curtain to see what no one else is seeing.

So, maybe it's a behavior that people have seen before, but *you* are the only human being that saw this bird incubate her eggs every single night. Like, you got to see something so intimate, and so miraculous really, as the development of a clutch of eggs. And it just... Every time I would look through any of the hundreds of hours of videos that I was looking through, or pictures, I had chills, many times cried at what I was given the gift to see.

Because I really... I am from very much the middle of the city, up north. I never thought that I would get to see stuff like this ever. I didn't think I was ever going to get out of Philly, to be honest. Not that you need to get out of Philly, but that, for me... I just didn't think I was going to leave my home. And I get to watch seaside sparrow chicks grow up next to the ocean where there are every manner of wildlife that you can think of thriving around them. And it just... I could wax... Oh Lord, I'm waxing emotional again. Forever. [laughs] But yeah, that's my favorite thing.

**Alie:** And the way that you bring it to people is so wonderful. I feel like I can picture you out there so much, whether it's covered in mud, or whatever it is. It's such a joy that you bring us along. And we don't smell anything, so that's a bonus.

**Corina:** You don't gotta smell a thing! [laughs] Thank you, Alie. It's always a joy to see people's reactions and engaging with me on the things that make me the most excited.

**Alie:** You're a treasure! Keep doing it!

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So ask wonderful people wonder-filled questions, because honestly, not to bum you out, but you will die one day, so you might as well just make the most of it. Also, they almost never laugh at you. And if they do laugh at you, they're pricks. So, click the links in the show notes and follow Corina Newsome, @Hood\_Naturalist, as soon as digitally possible. Again, @Hood\_Naturalist on [Twitter](#) and [Instagram](#). Ya welks, people! While you're at it, you can follow *Ologies* on [Instagram](#) and [Twitter](#), @Ologies. I'm on [both @AlieWard](#).

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Hunk of the year, Jarrett Sleeper of Mindjam Media, edits alongside Steven Ray Morris of *The Purrrcast* and *See Jurassic Right* podcasts. Nick Thorburn wrote the theme music.

And if you stick around through the credits, I confess a secret to you. This week, one is that I'm not used to wearing rings with any, like, precious gems on them, but did you know the under... Like, duh. The underside gets gunky? And if you clean it with some hot water and dish soap and a toothbrush, suddenly your gemstone ring is just as sparkly as all heck again? Very fun thing to clean also, if you like to clean things that are gross. I didn't know that.

Okay, berbye.

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