

Hydrochoerology with Dr. Elizabeth Congdon

Ologies Podcast

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Oh hey, it's the lady that hosts the podcast and let's get right in, you don't need me talking about talking about capybaras. Okay, so we're going to chat with the Associate Professor of Biology, the only North American expert in these furry, gorgeous charmers. Capybaras, side note, they are those snub-nosed, they're bricks of relaxation, these creatures that just are chillin', you may have seen them in video footage, maybe they've got a bird on their head, maybe you watched it on a loop to help you forget about your divorce for a few moments. Everyone loves a capybara.

So, this expert did her undergrad at Kent State University in zoology, got a PhD in Biology at the University of Missouri-St. Louis and has collaborated with the folks who wrote the actual textbook on this "exceptional neotropical species," as they call them. So, we're going to chat in a sec.

But first, thanks to everyone who supports on Patreon for a dollar a month at Patreon.com/Ologies. You can wear our shirts and hats and socks via OlogiesMerch.com. We also have free, shorter, and G-rated cuts of our episodes at AlieWard.com/Smologies. All those things are linked in the show notes. Also, thank you so much to everyone who has left a review which helps the show so much. I read every single one like this week from Lorozco1 who said that they:

... love the variety of personalities that make each episode special as well as the secrets I tell you at the end of the episode!

Just in case you did not know that I do that. Also, I just want to shout out to new ologite MisterJamesAllison who left a 2-star review after his first time listening. James did not enjoy that the topic of one episode was science poetry, as the title suggested. Just a reminder, you can click on any episode you'd like, you can choose which one you listen to. Also, if you go to Ologies.com, you will find 375-plus episodes over 6.5 years of doing this show. We cover everything from worms in the ocean mud to the vastness of the universe, all for free. So, have at it at Ologies.com.

Okay, hydrochoerology derives from their scientific name, which in Greek means "pig of the water." So, draw yourself a bath, put a piece of fruit on your head, and let's get ready for weird feet, square faces, interspecies snorkeling, capybara cafes, spa days, natural habitats, escaped capybara and rodents of unusual size, a fossil record that will rock you, what the Pope thinks of them, capybara songs, books, movies, and so much more with zoologist, Associate Professor of Biology, absolute capybara expert and thus, hydrochoerologist, Dr. Elizabeth, Beth Congdon.

Alie: You know how exciting this is, this is what you do for a *job*!

Beth: It is. And it's so funny because I'm like, "Oh what? Talk about capybaras for an hour? Yeah! [*Alie laughs*] Not a problem, I love it. I love it." Okay. Elizabeth Congdon, she/her and I am at Bethune-Cookman University, I'm an Associate Professor of Biology.

Alie: Amazing. Okay, first question. Hydrochoerologist, is that a word?

Beth: Well no. [*both laugh*] But I think it should be, quite frankly. So, yeah, I'm with it, hydrochoerologist, yeah.

Alie: Okay, and capy-bai-ra [phonetic], capy-bar-a [ph], how is it said?

Beth: In English, capy-bai-ra [ph]. But of course, they don't occur in any English-speaking countries so capy-bar-a [ph] or in Brazil capybara [*rolls the 'R'*], in Peru, *ronsoco*, in Venezuela, *chigüire*. So, they go by a lot of different names. But in the native Venezuelan language, capybara translates to "master of the grasses." [*Alie gasps and sighs*] How cool is that?

Alie: That's so great. I love that there are mammals who are less adept at grasses. [*both laugh*] There's a hierarchy like, "I'm really good at grass."

Beth: [*laughs*] Yeah, they grass really well.

Alie: Just have pioneered the art of grass. Now, how big are they? Because so many of us have seen videos but not necessarily with a person. Like, dog-sized? Cat-sized?

Beth: More dog, large dog. And they vary a little bit. So, in the north, they're a little bit smaller but a little bit smaller is still 50-55 kilograms.

Aside: American translation, over 120 pounds. As much as a Great Dane.

Beth: In Brazil where they're protected, they actually grow up to 75 kilograms [*Alie gasps*] which is close to 150 pounds.

Alie: No!

Beth: Yeah.

Alie: No.

Beth: They are huge! Now, they're chunky so they're shaped kind of like a pig, or the way I think of them is they have the body of a pygmy hippo.

Alie: [*incredulously*] What?

Beth: So, they're solid. And this would be in the rainy season when there's plenty of grass to eat, they're solid little buggers. And standing next to one, it's going to come up at least to your knee, if not a little taller. There are some pictures out there because people do have them as pets... I don't know why.

Aside: More on the feasibility of all of your hopes and dreams in a bit.

Alie: I can't believe it. I thought they were maybe the size of, like, a French bulldog.

Beth: Oh. Oh no!

Alie: 150 pounds!

Beth: Yeah, it's crazy. I know. They are literally the largest rodent species in the world. The second largest is the beaver. [*"Nice beaver."*]

Alie: Oh wow.

Beth: And yet, the beaver is like, less than half their size.

Alie: Is a beaver a rodent?

Beth: Yes.

Alie: Okay. A beaver is a rodent. We haven't done a beaver episode, so this is also, I suppose, news to me.

Aside: I got a guy in Montana for Castorology. Just you wait.

Alie: But yeah, keep going.

Beth: So basically, what makes a rodent a rodent is that their incisors continue to grow. So, their two front teeth are super sharp and that helps them, like, cut through the grass, right? If you think about trying to eat a piece of celery and it gets all stringy, they have super sharp teeth so that they can just cut right through the grass, you know, without having the stringy problem. And they need to gnaw on something – like if you've ever had a pet guinea pig, gerbil, hamster, they gnaw on wood in their cage and stuff like that – helps wear down the teeth and keep them sharp because otherwise they'll just keep growing and that can be really dangerous if they grow, like, down into their chin, essentially. So yeah, that's a rodent.

Aside: And if you're thirsty for more information, you can head to the sewers for our Urban Rodentology episode with the endearing and loveable New York City rat expert, Dr. Bobby Corrigan, an episode during which, I cry about rats, in a good way. But back to South America.

Alie: And is grass enough to keep their teeth sharp and worn down? Or are they out there eating all kinds of stuff?

Beth: They'll gnaw on wood occasionally to keep their teeth worn down but typically when they're munching on the grasses and a few other plants, that keeps their teeth worn down as well.

Alie: What are their teeth like? How big are their teeth? I imagine you've probably gotten up close much more than anyone else I'm ever going to meet. [*laughs*]

Beth: Yeah actually, I have a couple because I've saved them because, of course I did. Their top teeth, I mean, they're curved but they're a good four inches.

Aside: Beth rustled around her desk for one that she had on hand like other people might have an eraser or hand lotion.

Beth: A good three and a half inches anyway on a full grown, yeah, and the bottom ones are a little bit smaller. In Venezuela... They taste really good.

Alie: [*gasps*] No! I was wondering about that, if people eat them.

Beth: They do. So, being that they eat primarily grass, they taste like cow. Except, you know, if you think they're entirely grass-fed so they're like a really good grass-fed beef. So, in Venezuela, they're harvested right before Lent every year and with a managed harvest, a census is taken and then ranchers will get permits to take 20% of their population. I worked on a ranch that participated in that and so every spring, basically, I could take my pick of capybara teeth among other things, it was the less glamorous part of the research. But they've actually become a bit of a traditional meal during Lent because they are semi-aquatic and so in 1784 the Pope declared them fish. [*"To fish."*]

Alie: That's so bonkers. [*Beth laughs*] Do they even have capybaras in Italy? What did the Pope have to do with any of this?

Beth: No! Other than... Well, they wanted to convert Venezuelans to Christianity, Catholicism but Venezuelans really like their meat, and when the explorer (I can't remember the name of the individual) sent back a description of capybara to the Pope, described them as being in the water, so the Pope said, "Well, all right, let's call them fish." So, during Lent, the Venezuelans will not eat other meats, but they eat capybara.

Alie: Is it beefy or is it piggy?

Beth: It's beefy. It tastes like cow.

Alie: [*softly*] Wow. This is absolutely bonkers to me... I have so many questions. Are there enough to eat them or are they pretty endangered?

Beth: So, it really depends on where you are. Brazil, they're protected so it's illegal to kill them in Brazil, so they're almost a nuisance. If you think about in the United States, some of the places where the deer get overpopulated and become a nuisance, get into peoples' gardens and things like that, in Brazil, the capybaras start getting into peoples' crops and things because there are so many of them.

In Venezuela where, of course, the economy is struggling so people are somewhat desperate for adequate food – in particular, meat – outside of protected areas, you really don't see any capybaras. They're in ranches, private cattle ranches, or in protected areas and they're actually worth more per kilo, the meat costs more per kilo than beef does, so there's incentive for the ranchers to protect them. So, when they're protecting their cows from poachers, they're also protecting the capybaras.

Alie: And are they managed like in corrals?

Beth: No. They're territorial so they're not really trying to go anywhere. Now, my dissertation research was looking at their movement patterns and natal dispersal. When the young ones mature, do they stay with the social group they were born in, or do they leave? And what I found, for the most part, the females will stay with their natal social group, but the males will leave and find another group. And so, occasionally, you'll see a lone male wandering out in the savannah [*clears throat "Hello ladies."*] but they become lunch pretty quick. And for the most part, they're going to stay– because these cattle ranches are just huge – so they just wander to another group a little bit across the grassland. What we don't know is how a capybara sort of sidles up to an established group of capybaras and introduces himself. That's what I wanted to do for my next study, [*laughs*] honestly.

Alie: You would have to be out in the kind of the wilds where they're doing their thing in these long ranges, right? Would you really have to be traveling for that?

Beth: Yeah, so for my dissertation work, I lived on a cattle ranch in Hato El Cedral which is in Apure State Venezuela, and I lived there on and off for about two and a half years.

Alie: [*soft gasp*] Oh my god.

Beth: There's also an ecolodge on the ranch so they had infrastructure, a translator while I was still learning my Spanish and things, and they had a kitchen there that I could use and things like that. And they had an extra cabin that they let me stay in free of charge, while I did my research.

Alie: Dang. So, getting to your history, I want to know how someone becomes, essentially, the North American expert on this.

Beth: When I was in school for my masters, I studied primates in Venezuela and I just absolutely became enamored, just enthralled with tropical forests, with conservation, seeing animals in the wild, I was just hooked. So, for my PhD, I wanted to do something in the tropics, but I didn't want to stick with primates because I did not want to be a primatologist. Not that there's anything wrong with being a primatologist but many primatologists are in anthropology departments, and I wanted to be in an ecology department, I wanted to have a broader focus.

So, I happened to be at the University of Missouri–St. Louis and my major advisor, her name is Zuleyma Tang-Martinez, she is Venezuelan and has lived in the US for over 40 years, but she had a colleague, Emilio Herrera, who was at the University Simón Bolívar in Venezuela. So, she said, "You know, my friend Emilio is looking for someone to do fieldwork for capybaras because he wants to be in the lab more." And I said, "Well, I don't like being in the lab, I want to be in the field." [*"Nice."*] So, Emilio and I teamed up and I went down and met him and saw the ranch and everything and we established a collaboration.

Alie: Had you done a lot of traveling before that in your life? And were you familiar with the work of doing a dissertation or a PhD? What was your background like?

Beth: So, I started out pre-vet, as a lot of people do, right? When you love animals and you're good in science, it's like, "Oh, well go pre-vet." So, I started out that way, but then I worked at a small animal practice throughout undergrad and realized that veterinarians spend so much time talking to people about their pets and I don't want to talk to people... [chuckles] I shouldn't say that as I'm talking to people, [Alie laughs] but I mean, my thing was I wanted to work with animals, I wanted to be more directly involved with the animals more than the... I found it so heart-wrenching when you had an animal that was ill, and it was because the owner wouldn't take care of it.

Aside: And of course, there are cases of animal neglect just straight up, but there are also financial and mental health factors. And if you're considering giving an animal a good home and you can afford the time and the vet care, shelters are overrun with owner surrenders right now, post-lockdown. So, you deserve unconditional love from a hairy baby and those critters deserve a safe home.

Beth: That's just not something I wanted to deal with for my job. So, I started exploring other possibilities. So, I got an internship, volunteering at the Cleveland Zoo. This was back in... Oh, I'm going to age myself, the mid-'90s. It was when the Cleveland Zoo first established a research office and hired their first research coordinator. And so, I was like, among the first cohort of volunteers to collect behavioral data with the animals instead of cleaning up poop, which is what you usually have to do when, you know, you get started.

Aside: Yes, we have a poop episode called Scatology with a zoo poo biologist. And yes, if you can volunteer anywhere that you love being, it can really change everything. I did a field trip episode about the Natural History Museum of LA, there would be no *Ologies* without that time of my life. Unfortunately, volunteer positions don't pay, and a lot of internships don't either, so it's really a privilege to afford the time but if you can give even a few hours a week, I've found it was worth every second to lift my spirits and help narrow down what you love, while hopefully helping some people too.

Beth: So, I went into it thinking I wanted to be like a zookeeper and go into animal care. My first assignment was to do behavioral observations of Chilean flamingos and I just fell in love with the process; everything from creating the data sheets, collecting the data, figuring out how to analyze it. And that's a whole other podcast about the flamingos.

Aside: Speaking though, of birds and the bees.

Beth: I want to know how capybaras date. You grow up, you leave home, how do you find a new group? How do you introduce yourself if you're a capybara? [*"Hi there." "Hi, hello."*]

Alie: Where do they originate from and what is... Like, geographically, where are they, and how long have they been there?

Beth: So basically, they are from the Panama Canal, all the way down to Northern Argentina. So, they're just in Latin America. There are no natural populations in North America or in Africa and I believe there was a fossil, like a 600-pound fossil.

Aside: Okay. So, about 25 years ago, the skeleton of a 600-ish pound rodent named *Phoberomys pattersoni*, but then in 2008, a bigger extinct rodent emerged on the fossil scene, the *Josephoartigasia monesi*, which may have weighed in at 1,000 kilograms or 2,200 pounds. Here you are, you're going about your life, you're deciding what burrito bowl to order for lunch on a planet

that once had rodents weighing more than a Ford Fiesta. Good luck going back to your old life after this episode, it's never going to happen.

Alie: How did they get so big?

Beth: Well, the way I think about it is not so much how did they get so big, but how did they survive being that big, right? So, if you think bigger, more babies. Capybaras do have more offspring than would be expected from an animal their size or from another mammal. So, they average about four offspring per litter, but they can have eight, nine, I saw one with ten but that was a rare, rare event. Bigger animal, more offspring; more offspring, more of them in the next generation. And then it just is sort of a forward loop. Where, in Africa, you have a lot of different grazers, a lot of different grass feeders and browsers and things. But in Latin America, you have deer and capybaras.

Alie: Oh!

Beth: Not much else. They are the master of the grasses. *[laughs]*

Alie: *[laughs]* Yeah, I was going to say.

Beth: Once they found their niche, they're like, "Cool, this is ours."

Alie: The deer can't compete with them maybe?

Beth: Well, the deer tend to be browsers, so they tend to eat on the lower branches of trees and leaves off of lower things and in the brush, whereas the capybaras are the grass. They're eating slightly different foods, in terms of the species that they eat.

Alie: Speaking of other species, are they okay with other animals? Do they have natural predators? Why do we see so many videos where they've got monkeys on their heads or they're chilling with crocs, or they're like, raising kittens? What's going on with that?

Beth: I know. So, I think, really, it's that they're super chill. I was just watching a clip of them in the movie *Encanto*, they're completely nonchalant like, "Whatever." The way I think of them too in the field is, "Give me a patch of grass, I'm good, don't bother me. Leave me alone." And so, now of course, in the zoos, they've got monkeys crawling around on their backs and everything but in the wild, I have seen them where they are in the water and there's a turtle that crawls up on the back, and basks on the back of the capybara like it's a log, iguanas, birds, just riding around on their back while they're swimming around. And there are caiman in the same habitat and also, the particular ranch I worked at had introduced Orinoco crocodiles because they are endangered. And I have a photograph of capybaras sleeping right next to the Orinoco croc.

Alie: Why don't they attack each other?

Beth: Well, I mean, I can't ask the crocodile of course, but it would appear the crocodile is not hungry. There are plenty of fish, crocodiles eating fish.

Aside: Just a PS, Orinoco crocs are native to the Orinoco River in Venezuela and are these critically endangered, long-snouted water beasts. They pretty much only eat fish and they're not hunting capybaras because very few of these crocodiles are Catholic.

Beth: But back to your question of their natural predators, jaguars...

Alie: Ohhh.

Beth: Anacondas...

Alie: Ahhh!

Beth: Yeah, there are big anacondas so a big anaconda can wrap around and take an adult capybara.

Alie: Whaaat? And a p- person too... yeah.

Beth: Well, yeah. That's a whole movie genre unto itself, of course. *[both laugh]* ["*Anacondas are a perfect killing machine.*"] And then the baby capybaras are snacks for just about anything. A baby capybara is about the size of an adult guinea pig. *[Alie laughs]* And they are most closely related to guinea pigs so if you think about the shape of their head and stuff, they're kind of like giant guinea pigs.

Alie: Getting back to chill because I don't think I had more questions than: Why are they so chill? Even my sister asked, I just texted her, she's a capybara enthusiast.

Aside: Celeste, Saucy, this one's for you.

Alie: And she was like, "Please ask, why are they so chill?" Do they have bigger brains that are like, "I'm not threatened." Or do they have tiny little walnuts that are like, "Who could not like me?"

Beth: I love them dearly, but I don't think they're the brightest in the bunch. I really don't. I think what it is is that because they eat grass, grass takes a long time to digest [*"God, I'm so full."*] and so their metabolism is somewhat slow and if you think about how cows are like, "Okay, I'm just eating my grass, chilling, standing here." Also, because of their size, there aren't very many natural predators so they can afford to be kind of chill and relaxed. Now, they will, I have seen a mama capybara back down a caiman when that caiman was going after her babies, and they can run pretty fast for short distances.

Alie: That's got to be so weird to see one galloping full speed.

Beth: *[chuckles]* Yeah, they are kind of funny, they're not the most graceful.

Aside: I needed to know how fast our beautiful piggy friends can run and was *alarmed* to learn, it's up to 35 kilometers or 22 miles an hour; that is a speed comparable to a horse. The world's largest rodent running as fast as a horse... Into your arms? Maybe. But in looking this up I also learned that a lethal black mamba snake can move about 20 miles an hour which is as fast as an Olympic sprinter. One animal that can go twice that speed, 40 miles an hour, is called a Mongolian wild ass, which 100% sounds like a hot sauce your brother-in-law brings to Thanksgiving.

Alie: Let's talk about the zeitgeist.

[clips of various news segments]

So, what do you use to catch a capybara? How about another capybara? Well, how about another capybara on a leash.

They trucked in capybaras from zoos all around the region and zookeepers recorded the times each contestant entered a hot bath and then left. I'm sorry, are we bothering you with this story, Keith?

I didn't even know that these animals were like, trending on TikTok until my 25-year-old daughter said, "Oh my gosh mom, you get to go do that."

One of the keepers training a capybara named Tater Tot. That's a great name.

Millions of likes and a cold following on TikTok and now a local business is feeling the capybara craze. They are kind of cute, right?

Let's talk about the world's love of capybaras. What has gone on? You've been researching this for so long, at what point did you see, "Holy shit, people really love capybaras." When did the internet fall in love with them?

Beth: Well certainly, the internet has helped. But one of the things I always find interesting is that when I meet families, it tends to be the kids who know what capybaras are. [*Alie laughs*] And up until recently, if adults knew what they were, it was only because they loved the movie *The Princess Bride*. R.O.U.S.s.

Alie: Rodents of unusual size. [*laughs*] [*“Westley, what about the R.O.U.S.s? “Rodents of unusual size? I don’t think they exist.”*]

Beth: I mean, for the first couple years I started studying, I got that all the time. “Oh my god! R.O.U.S.s!” [*Alie laughs*] And I used to get kind of upset because I was like, “They’re not that ugly!” In the movie, they were made to look like giant New York City rats. I’m like, they’re so much cuter than that!

Aside: Okay, so I dug deep on the internet, and I found a PDF script for the classic 1987 romance, fantasy masterpiece, *The Princess Bride*. And the screenplay directions described the rodents of unusual size as, “No more than 80 pounds of bone and power.” And in the film, the R.O.U.S.s are these tree-dwelling, carnivorous predators of the bog. All that being said, they are *still* smaller than actual capybaras.

Alie: So, does that ever disturb you as someone who is a hydrochoerologist, that capybaras were done so dirty?

Beth: I have learned to let it go, mostly because my friends hate it when I interrupt a good movie to say, “That’s not right.” [*both laugh*] Especially if it’s a cartoon. They’re like, “It’s a cartoon. Let it go.” But it’s so great to just see people appreciating them, you know? But I still think one of my favorites was, do you remember the cartoon *The Tick*?

Alie: Oh yeah, of course.

Beth: And *The Tick*’s pet was a capybara named Speak. [*“Good boy, Speak!” “I love you.”*] And then it was the young people who, when the internet really started getting popular, it was the young people who were on the internet, so they just somehow blew up, they went viral.

Alie: How do you feel about them wearing oranges on their head?

Beth: [*laughs softly*] I mean, people are going to do what they do in zoos, but I really don’t like exotic animals being pets. I mean, people do it, but I prefer people stick to dogs and cats and not... I mean, you really want to see me get upset, put a monkey in a dress.

Alie: [*laughs*] Yes. Or a diaper. [*Beth groans*] I’ve heard terrible things about that.

Beth: The thing about capybaras is I don’t understand why people would... They’re not cuddly. I mean, of course, you can get to know them and I’m sure they have some kind of personality that you can become endeared to and things, but I like to appreciate them in the wild. I like to leave them there.

Alie: Not recommended as pets. That was another massive question we got. They look maybe like they could be soft, but are they bristly?

Beth: They’re bristly, yeah.

Alie: Oh, so they’re not like a pillow.

Beth: It’s interesting because in Venezuela, people eat them, but they do not use the hide for leather. In Argentina, they use the hide for leather, but they do not eat them.

Alie: Oh! What’s up with that? What do they do with the hides?

Beth: It makes a really soft, like, calf-skin-like leather.

Alie: But what are they doing with them if they're not using them?

Beth: In Venezuela? Oh, they just toss them, they let them rot.

Alie: No!

Beth: Yeah. [*"I've got a business proposition for you."*] When I was there, I was like, how about Argentina send the meat to Venezuela, Venezuela send the hides to Argentina? Couldn't we make this more efficient? But, you know, Venezuelans and Argentinians are kind of rivals.

Alie: Oh man, we need a diplomat down there to be like, "Listen everyone. Fewer capybaras need to die, everyone's making a lot more money." What do they smell like?

Beth: Again, I was in the wild, they didn't smell great. [*both laugh*] They smell better if they're a pet or in a zoo. I can't come up with a description off the top of my head.

Alie: Musky? Are they musky? Are they barnyard?

Beth: Dusty. They smell kind of dusty because I was in the savannah, and I would capture them to put ear tags because it's very difficult to tell them apart. Actually, I hired local cowboys who would lasso them from horseback, and then once they had one lassoed, I would drive my Jeep across the savannah to meet them and then I would put an ear tag, take measurements, take a tissue sample so we could do genetics, and that was during the dry season, so everything was very dusty and they kind of had that dirt smell. But clean dirt, I must say.

Alie: Would you have to give them, like, a Xanax for that?

Beth: We didn't for the most part, we would just do it as quickly as we could. It only took like, 10 minutes to do all the processing. So, rather than risk some sort of negative side effect to any kind of anesthetic or sedative, we just did it as quick as we could and released them and they would come back to their range, you know, within a couple of days. [*"I'm just going to lay low, man."*] So, they would run away immediately of course, but then they'd be back within a couple of days.

Alie: They'd be like, "Oh, it's fine."

Beth: Again, they're chill!

Alie: Did you ever take the opportunity scientifically to boop them on the snoot at all?

Beth: [*laughs*] I never booped, I did not boop. But I did have the opportunity once, there was a baby that was orphaned and someone brought it to me, so I did have the opportunity to bottle-feed a baby for a few days, and that little baby, that one I booped.

Alie: Oh, I don't blame you. I don't blame you.

Beth: He slept in my hammock with me.

Alie: Aww! These are the perks of being a hydrochoerologist.

Beth: And yet, I totally admit that it is not fair. [*Alie laughs*] It is not fair that I tell people that they cannot have them as a pet, but I got to play with a baby for a week, not fair. If it makes people feel any better, I was in school for a really long time and I still don't make great money.

Alie: [*laughs*] There are tradeoffs. There are tradeoffs.

Beth: Tradeoffs to everything.

Alie: You sacrifice! So, looking at their nose, and I feel like maybe I read this through your research, that males produce copious amounts of secretions to be attractive?

Beth: So, they have a scent gland on their nose. Males and females have the gland, but it's much more pronounced in males. So, you can actually, from a distance, tell a male is a male by this, it's called a *morrillo*, which is Spanish for like "little hill." It looks like they have a computer mouse sitting on their nose because it's this bump. They produce this milky secretion, and the dominant males produce more than the more subordinate or juvenile males, and they produce more than females. Now, females will not scent mark with their snout, males will. Males will go over, rub on a tree, rub on vegetation; they'll pretty scent mark anything they can get near. When I was observing them, as long as I was downwind so they couldn't smell me, they would come over and scent mark on my tripod.

Alie: Oh gosh.

Beth: But the females and the males both have scent glands in their anal region, anal scent glands, and so they scent mark with those as well and this would be basically communication within the group, they're signaling that we are a part of this group, who is sexually receptive at what time, ["*Are you... seeing anyone?*"] who is the dominant, who is the subordinate? That whole communication is through those scent glands and through those scents.

Alie: Did you ever have to smell your tripod afterward? Did that have a smell?

Beth: No. I would clean that up. [*both laugh*]

Aside: So, when someone posts a sign in the break room about how "The office manager is not your mom, so please wash your own coffee mugs," just remember, some jobs involve smearing capybara nose musk off of your belongings. I asked the internet and apparently, the sultry face juice has a mild musky odor, like that of a beaver or a muskrat, which did not help me at all because I have sniffed neither of those things, even in a platonic way. But yes, a male capy will have this nose lump, it looks kind of like a face scab but it's just his rizz.

Alie: What about... They have these big square noses, is the scent gland part of the size of that? And why, generally, are they so square? They're such blocky animals.

Beth: So, if you look at photos of them when they're swimming, they have just the top of their head out of the water and with just a little bit of the top of their head out of the water, their nostrils, eyes, and scent gland are out of the water.

Alie: Ohh! Okay.

Beth: So, that box-like shape allows them to be almost completely submerged but still have their nostrils and eyes above the water. When there is a predator, they will run into the water. Their territory always has a body of water, an area of bushes that they can sleep in, hide in, that's where they hide the babies, and then a grassy area where they eat. They alarm call, so they warn each other when a predator is coming. They have this bark, honk, bark [*hoarse honk-bark sound*] crossover and when someone sounds an alarm in the group, everybody jumps in the water.

Alie: Really? Do they have different alarm calls for different things?

Beth: Their alarm call is pretty much just one type, but they do have different vocalizations. They have that and then they have this chirping, clicking [*high-pitched, repeated chirping*] that is more when they're playing or when they're mating. So, they have an affiliative, friendly sound and then an "Oh crap, there's a jaguar," sound.

Alie: I'm glad that we've answered that. Can I ask you some listener questions?

Beth: Yeah, absolutely.

Aside: Okay but before we soak in the misty waters of your inquiries, let's give to a charity. This week, Beth chose a critter cause that was close to her heart and her home and that's Edgewater Rescue in Florida where she helps train and find homes for rescue dogs like pit bulls and boxers which are also smaller than capybaras. I can't get over that they can be 150 pounds! It's... What? I didn't know! Anyway, yeah that donation went to EdgewaterAnimalShelter.org in her name and that was made possible by sponsors of the show.

[Ad Break]

Okay, your questions. Patreon Pals, Friends, and BFF tiers get to submit audio questions now, which may run on the show, but any patron can join for a dollar a month and submit written questions, I may read your name and your question on the show so let us cap this off with your very good questions.

Alie: Okay, questions from patrons. Kelsey lives in California, this is a good story:

"Hi, my name is Kelsey and I live in California. When I was in college, I went to college in Texas, and for a summer I commuted between Waco and Houston every weekend. One night, late one night, I was driving down a country road and I had to slam on the brakes because there were, like, 12 brown rocks crossing the road. People have tried to tell me that those were nutria, but I've googled nutria, and they're like little muskrats, basically. These things were HUGE. I mean, they definitely looked like if I slammed into one, the car would be hurt, and the animal would be fine. So, is there a chance that there were capybara in Texas? Thank you for helping me solve this mystery."

Beth: There is absolutely a chance.

Alie: [gasps] Really?

Beth: Oh yeah, oh yeah. So, one of the things Texas is known for, unfortunately, is ranches that have canned hunting. So, there would be a ranch and they have exotic animals and people pay thousands of dollars to have the opportunity to go and shoot a lion or a giraffe and I think it's horrible just to make that clear, I'm not advocating for that at all. But there are a few ranches in Texas that have capybaras. If you ask me, it's not a real sporting sport to shoot at capybaras that are contained by a fence [*"It's like shooting fish in a barrel anyway."*] but people will pay for this. So, there's absolutely a possibility that some escaped and yeah, were wandering across the road. We have some sightings sometimes here in Florida. There was one... I think in 2018 someone hit a capybara with a car.

Alie: [softly] Yikes. And that's a big boy, right?

Beth: Yeah. Typically, if there's just one, it's going to be a big male that's trying to find a new home. The story goes here in Florida that a small group escaped from a research facility in the '90s and then reproduced and got up to something like 50 individuals but there's only really occasional sporadic sightings and nothing of groups that size anymore. So, the idea is that they're not invasive; they're exotic but they maybe have a few offspring but not enough to become what we would call invasive where they really create a problem for the local flora and fauna.

Alie: So, being in Florida, you're not based in Florida because it's getting overrun with capybaras and pythons and all kinds of other... [laughs]

Beth: No. I came to Florida for the job and then was thrilled that there might be capybaras here. I thought, this could be too good. [Alie laughs] So, I did work with some people out of the University of Florida, and we did our best to find them but we were not able to locate any kind of breeding population. We'd find an occasional footprint but that was pretty much it.

Aside: Okay, I needed more info on this escape drama and apparently near the Santa Fe River in Florida near Gainesville, five of them busted out in the chaos of a storm that broke a pasture fence. According to the 2018 paper, "Status of Capybaras and Potential for Establishment in Florida," by 1995, all the original escapees, they said, were recovered but they had already started reproducing. Does this mean they're not invasive but kind of feral, like, if you found a 150-pound puppy and you took it home to feed it organic lettuces?

Alie: Other patrons, and I know we've addressed this a little bit, have asked, in Erin's words:

"Hi, this is Erin Ryan from Vancouver, Canada and I'm calling because I would like to dash the hopes and dreams of my friend, Allison, and just reaffirm that capybaras make terrible pets. Thank you!"

Beth: Well, I'm going to say two things. One, again, they're not cuddly. But also, they like to pee and poo in the water. So, you have to have a pond or a swimming pool in the backyard and then clean the capybara crap out of it. That doesn't sound like any fun to me. *[laughs]*

Alie: No! How big are their poos? Are they like Duraflame logs that come out? Are they like guinea pig poo?

Beth: No, actually it's more like pellets like you would think of deer pellets but a little bit bigger. Actually, they look like chocolate peanut M&Ms.

Aside: Honestly, I could deal with that, but the lack of cuddling would be heartbreaking and frankly, a little triggering. But I wasn't the only one thinking about it, dreaming about it. Patrons Average_Pi, Molly Petzl, Lyssa Mercier, Christina Samela, Peyton Nill, Codolod, Jasmine Liu, Bianca Palm and...

Alie: Jessi LaHote, first-time question-asker, wants to know: Are they as snuggly as they look? Like, would a capybara let me give it a hug or would it rip my face off (or something in between)?

Beth: A baby would give you a hug. An adult would probably bite you. *[Alie laughs]* I have been bitten because again, I lasso them, tackle them and pierce their ears so I make them mad. So, I've gotten nipped, nothing serious. But yeah, like any animal, "Scare me? I'll bite you."

Alie: Yeah, did they bite you on the glove or did they draw blood?

Beth: Well, one got me in the back of the leg and drew some blood but nothing too serious.

Alie: Did you need any antibiotics? Just a little Neosporin on that?

Beth: Whether or not I needed some or had some are kind of two different things, possibly. *[laughs]* I literally used Krazy Glue on it.

Alie: *[laughs]* Oh my god. What does your family think of your job?

Beth: They're getting used to it. *[Alie laughs]* Yeah, they got used to it. When I first went to Venezuela to study the primates and they realized that I was going to be there kind of by myself, that I wasn't there with a whole team, they looked at me a little sideways. But by now, I mean, I've done it enough that they're like, "Oh yeah, Aunt Beth is going someplace again."

Alie: I think you must just be the most exciting person at Thanksgiving. I just feel like all eyes would be on you and asking more questions about having to lasso a capybara.

Beth: I don't know about exciting, but I tend to have some unusual stories when I'm with my family. What's fun is when I'm someplace with my other wildlife biology, behavioral ecology friends and we're all swapping stories about giant pouched rats in Tanzania or *Anolis* lizards in the Bahamas, and then capybaras in the savannahs are just another story.

Alie: And I understand that you are pals with another mammalogist and rodentologist we've had on, Dr. Lee, right?

Beth: Oh yeah. Dr. Lee and I were in the same lab as grad students and are still really good friends. She's one of my heroes.

Alie: That episode... Augh, she's amazing.

Aside: See Dr. Danielle Lee's Mammalogy episode about giant pouched rats that wear backpacks and sniff out landmines. Oh, we love her and her rats.

Alie: You were talking about whether or not you could cuddle them. Megan Hirth and Evan Davis both want to know, Megan's husband wants to know: Can I kiss them? Or do they like little kisses on the head? I'm going to guess that that's a no.

Beth: Again, just the babies. Just the babies.

Alie: Okay. Olivia Lester, first-time question-asker, you just mentioned rats, wanted to know: Can they learn commands akin to rats?

Beth: I'm not aware of anyone being able to train one with anything as impressive. Rats are pretty smart.

Alie: Okay. So, I think this is all stemming from the, can a capybara be my best friend? And the answer is, it's going to be a no unless you like cleaning up a lot of poop, and just not a good idea. [*"I'm sorry, everyone."*]

Heather Crane would like to know about their feet: Do they also work like hands? Can they grab things with them?

Beth: Actually, their feet are more adapted to being able to swim, they have webbed toes. [*Alie exclaims*] Yeah, so they can dive, and they can stay underwater for quite a bit of time, I think two, two and a half minutes, they can stay underwater when they dive. They have little webbed toes which makes them not great for grasping anything but good for swimming.

Alie: Do they have really big lungs for that? Or just slow metabolism?

Beth: Just a slow metabolism.

Alie: Wow. Sarah King and Olivia Lester would like to know about their dongs. What's the average penis size for a capybara? Sarah would like to know.

Beth: So, I don't have an exact measurement [*Alie laughs*] but it's kind of dog-sized, the average dog. What's funny is that the penis is carried sort of inside a little pouch in the abdomen, it doesn't, like, dangle free, so to speak. So, when we would capture them, I would have to massage their abdomen to see if anything popped out [*"Oh. Okay."*] and it got to be sort of a talent. Like, the locals would take their guesses and then I was... there's a... yeah, a claim to fame for you. "I was really good at getting the dong to fling out." [*laughs*]

Alie: [*laughs*] You've got to know the whole thing!

Beth: Yeah, all of it.

Alie: From big nose to tail. Speaking of tails, Maddy Barnard, MamaBee & DadAussie, Mark Hewlette want to know: Do they have functional tails? Olivia wants to know: Why don't capybaras have long tails like other rodents?

Beth: So, they don't have tails, really. And again, if you think about like a guinea pig, doesn't have a tail. And this, I'm going flip the question backwards and be like, well, why would they need a tail? And if they don't need one, why waste the tissue?

Alie: Right.

Beth: Right. So, if you think about a tail as being good for flicking off bugs or something that get on your back, well, they have a really thick hide, so the average mosquito and things isn't really going to bother them too much. Or a tail might be for communicating like we think of in dogs, wagging a tail, I'm happy, my tail gets stiff, I might be scared. Well, they have their scent glands to communicate, So, it's just that they don't really have a use for one and so in an evolutionary sense, the way we think of it is that the energy is better spent being devoted to other things.

Alie: Mm-hm. Like, I don't need a tractor so why would I have a tractor?

Beth: Exactly.

Aside: But you need answers about body language and behaviors, Rachel Cates, Hannah Gorrie, Aurora Arriago, Aoife Holmes, Jaclyn Campsey, and Emma, who had the all-caps question: WHY ARE THEY SO SILLY?

Alie: Which dovetails well into ChimeWitch's question: Do they have their own body language? Is it easy to pick up on?

Beth: So, I'm sure that they do, but no, it's not easy to pick up on. [*both laugh*] So, in terms of anything subtle, I mean, they have the clicks and the chirps, and they will groom each other sometimes and give each other snorts if they're angry. But in terms of anything subtle, not that I could tell. But again, they're so thick-bodied, they also don't have a lot of flexibility. So, I think they're limited a little bit in, sort of, their repertoire of fancy movements because they're so stocky.

Alie: Well, these questions from patrons kind of shocked me. Stephen Moxley said: They look so friendly and kind, but I've heard they can really throw down and fight. Angela Clark says: I worked at a zoo over the summer, and one "secret" we kept from the public is that our adult female capy was a murderer. She killed two other capybaras that they thought she'd gotten used to. What's up with that? GermanSil wants to know: Is this a sea otter situation where they look really cute but are actually very evil?

Aside: See our Lutrinoology episode about otters to shock and to horrify you. But capybaras are not sea otters.

Beth: They're territorial. They will get into gang wars if two groups from different territories come next to each other too close. But also, the males have a dominance hierarchy. So, the dominant male will basically beat the bejeebus out of a male that tries to challenge him, and the dominant male will try to be the only one that mates with the females by chasing others off. Subordinate males can sometimes be sneaky and sort of catch a female when the dominant is, you know, off eating or something like that. So, they do get to sneak some fun time in there. But they can get really nasty. I've seen some pretty nasty wounds from them fighting during the night when they're wandering. So, during the day they tend to sleep because it's so hot. So, they sleep more during the day, and then at night they might be more likely to be up moving around and then get into fights and scrapes and things. So, yeah, those teeth can do damage.

Alie: Oooh. Aleah Cefalu, first-time question-asker, knowing that maybe people will change their minds, but wants to know if you've heard about or been to the capybara cafe in Tokyo. A lot of people mentioned this, I did not know there was one. Thoughts?

Beth: I would love to see it, oh my goodness. Now I want to go. I have not been, and it really makes me curious because now I just have all kinds of questions. How close can you get? How tame are they? So, once they get habituated and are used to people being around, there was one even at the ranch that would let people come up and pet her. So, once they're convinced that people are safe, then

they can be, you know, okay with being pet and stuff. So yeah, that could be cool. I can't imagine it smells real good, I don't know why you would want to eat in the same area.

Alie: I'll look at the Tripadvisor reviews and see what they think. *[laughs]*

Aside: Okay, so I looked up videos and reviews and it seems that they will crawl right up on your lap if you're holding a fistful of arugula or something. And as far as the vibe, the capybara in the videos I saw, appear much more low-key than a guy on a Zoom call at Starbucks. It's a very chill environment. And a TikTok I watched described their fur as feeling like you're petting a coconut or a broom. A Reddit post about the ethical issues of individual animal cafes shared their own report that at the one they went to, the capybaras looked happy, they could roam freely, and the staff would kindly ask you to wait for them to come up to you in your seat, so it was not possible to corner them.

I also poked around Tripadvisor and then I asked my husband, your Podmother Jarrett Sleeper, to please read one actual review that deserved to be savored orally.

Jarrett: We arrived and found it to be a wonderful intimate experience. I had envisioned a petting zoo but it's really getting your own one-on-one time with the animals. Every step of the process was translated to English, and we were able to purchase fresh greens and sugar cane for a nominal fee over the provided dry food and they loved it. Such sweet animals. I think Ms. Ringo Apple is still grieving the loss of Ronboy but Ms. Potato could put her grief aside for yummy food. Well worth the trip.

Alie: That was excellent.

As for the poo factor, I saw videos from some capybara cafes that looked very clean and tidy like the lobby of a nice office building, and others that were hay strewn with peeling floors. I'm not a capybara, we all know that, I've never been chased by a jaguar in the wild, but I'm sure that capybaras would rather be in the wild smearing their noses on rocks and having harems and intercourse. So, look within yourself and do your own research folks.

So, I hope that answers your questions, Beth and Patrons Austin Broadwater, Nathalie Jones, Celeste (not my sister) Rousseau, Amelie Lu, Mindy, and Aleah Cefalu.

Alie: Reagan Kendera wants to know if they fart a lot?

Beth: They do. *[laughs]*

Alie: They do. *[laughs]*

Beth: *[through laughter]* And they fart underwater, and you can see the bubbles come up. *[bubbles popping]*

Alie: *[laughs]* Oh my god.

Beth: It's so entertaining.

Alie: Well, you know, that actually goes well with a question we had. So many people wanted to know about spa life.

Aside: Okay, I'm saying your names fast but I'm holding you dear in my heart Riikka Puttonen, Stella and Claire, Milan Ilnyckyj, Juliette, Jessi, Jordan Boudreau, Frankie, Zed Shirogane, Mandii Smith, Paige Nicole, Emma is Rosey, Arlo Kay, Grace, and first-time question-askers, Daphné Cloutier, Reuben Neumair, and Kerri Chin. In Kerri's words: Why do they always seem to be relaxing in a spa? (Love that for them though).

Alie: And why do we see so many videos of captive capybaras just enjoying the spa life?

Beth: Because it's really hot where they're from. That's as simple as it is. They spend a lot of time in the water because it's freaking hot.

Alie: Really? Okay. So, then if they were, say, taken to the Cleveland Zoo or if they were taken to the Seattle Zoo, would they still want to bob around in a jacuzzi of their own farts, or not?

Beth: They're still attracted to the water, it's because now it's just part of their genetics that they're attracted to water. I'm sure they wouldn't spend as much time in the water. So, there are two ideas for why they defecate and urinate in the water. One is just that they're always around the water and that's where it is. The other is that that hides it from predators.

Alie: Oh! Got it. So, they don't leave like, a trail of M&Ms. [*chuckles*]

Beth: And particularly with the urine, the smell of urine.

Alie: Ohhh! Okay. But their scent marking glands they're fine with?

Beth: Yeah. But scent glands tend to be like pheromones, those are for the same species, capybaras talking to capybaras. As far as I know, other animals do not react to their scent glands.

Alie: Oh, that's handy! Right? Because jaguars have a very pungent kind of smell that I imagine other animals could smell, right?

Beth: Yeah. So apparently, it's secret capybara code.

Alie: Oh! Big blocky spies, who knew?

Beth: Yeah, there you go.

Alie: Katie Hammond and Tilda Mills want to know how long they live for. What's their lifespan like?

Beth: So, we think it's about six to seven years in the wild. It's really hard to tell. They haven't been popular enough in zoos for long enough for us to really have a good handle, at least the last time I checked, on how long they live in zoos. But yeah, in the wild, we think six to seven years. So, not real long, not real long.

Alie: Yeah, not as long as I would have hoped for.

Beth: They live hard and fast.

Alie: [*laughs*] They live hard and fast. [*"Get out, take a few risks. Live!"*] Is that typical for an animal of that size?

Beth: Yeah, if you think about in dogs, the larger dog breeds tend not to live as long. So yeah, bigger rodent, not live as long.

Alie: Aww, that's sad.

Aside: But if they trade in their freedom for fame and live in a zoo, they'll have an average lifespan of 12 years in captivity. Never hungry but never out of the spotlight. Meg Kelly asked: Very important, very scientific question: Have you heard "The Capybara Song"? And Molly Rupp, Rachel Weisz, Lianne Murray, Lauren Hurlburt, Timmy H, Storm, Deli Dames, and Earl of Greymalkin also needed her thoughts on this earworm of a bop.

Alie: Others want to know how you feel about "The Capybara Song" that's been on TikTok? [*song starts to play*] I'm unfamiliar but I'm sure people have sent that to you.

Beth: "The Capybara Song" that's out now, the lyrics are just "Capybara, capybara, capybara," so it's cute [*record scratch, song stops*] but I'm hoping for something with a little more nuance to it. I might have to write one, I just might have to write one.

Alie: I think that you're the songwriter that the world needs right now. You can cram a lot of facts in a few-minute song.

Beth: Everybody's looking for a side gig these days, right? That could be my side gig.

Aside: Listen, we live in the hellscape of hustle culture but how is life for capys, asked Mariia K, Olivier Calas, Phinn Markson, Deanna Roberson, GermanSil, and Tina Robbins.

Alie: A lot of people want to know, sadly, Scott Sheldon says: Debbie Downer here but with the destruction of the Amazon, are they okay? I doubt thriving, but okay? The Joyful Spitfire wants to know: How has deforestation impacted the capybara?

Beth: So, of course, deforestation is affecting everything. The advantage that the capybara has is that they are so versatile. So, they are found in forests along rivers because they want that water. So, they are in riparian forests, but they're also in open grassland and open savannah. There are pockets where they're doing very well and then pockets where they are not. It's sort of a challenge to really say, so are they threatened or endangered or not? Well, do we want to look at the whole distribution throughout South America or are we just talking about one region? Because in one region they might be in trouble, but in another region, they're doing okay.

Alie: Aha.

Beth: So, for right now, their overall numbers, they're not considered threatened at this point.

Alie: Okay. That's surprising. For some reason, I would think that because they're so weird and because they're on the end of a bell curve in terms of size and adorability that of course they would be threatened.

Beth: Well, this is where they get lucky because they like the same habitat as cows.

Alie: Ahh! Oh!

Beth: And we have a lot of space for our cows. So, Venezuela, Argentina, Brazil, big agricultural culture there so the agricultural lands can also support the capybaras. So, they happen to share a habitat that we have a vested interest in protecting as well because it feeds out cows.

Aside: Okay, but some places, like these wetlands outside of Buenos Aires in Argentina, have been shrinking, the habitat is shrinking due to luxury real estate being built. This one very expensive gated neighborhood saw a rise in wild capybara populations during COVID lockdowns because the quiet streets gave them room to roam, and it fostered a new boldness in them, and they started milling about in empty intersections. They were grazing on lawns and rose bushes, sometimes they would run eerily fast toward delivery drivers. Capybaras probably loved it, but the residents did not, and ecologists had to remind people in the neighborhood that hey, this is not an invasion of capybara, you are living on their turf. You're lucky the capybaras let you stay here. I haven't looked at any Zillow listings for the area, but personally, I would be stoked to see some real estate photos with a capybara on the deck or in the hot tub.

But speaking of ecology, Alice Rubin wanted to know: What ecosystem services do they provide?

Alie: And do cattle ranchers want to kick capybaras off the land because they're eating all the grass? Or are they like, "You can come through here, it's fine."

Beth: The capybaras, because they're trimming the grass back but don't take the roots, they actually help the grass grow better and they're not trampling on it. So, the problem with cows is that they eat the grass but then they trample the ground and it's just mud. Well, the capybaras trim the grass without trampling the ground so they're actually good for it.

Alie: And is there enough water nearby that they can do their thing?

Beth: If there isn't, they're not there.

Alie: Okay. *[laughs]*

Beth: Basically. So, in the managed areas, the water is often managed as well with different dikes and small dams and things to make sure that even in the dry season, there is still water availability, depending on what that land is being managed for, either for cattle ranching, or as an ecolodge, or some kind of preserve.

Alie: Okay, you're not going to have like, a duck farm without a little pond on it, right?

Beth: Right.

Aside: And why do capybaras take like ducks to water? capybaras breed in the spring and they're pregnant for about five months. So why, if they were Virgos and Libras, why are they such Pisces? What's up with the water thing? ShizzamX, Valerie Hanley, Morgan Darling, Janey Jones, Bonnie M Rutherford, Emily P, Tori Baggot, Kae Gatensby, Iso Partee, Mara Rosenbloom, SpunkyS, BeckytheSassySeagrassScientist, Paulina Tarr and first-time question-askers, Rachel A and Haily Midgley wanted to know: What is up with their life aquatic?

Alie: Do they need really big, wide bodies of water to hang in or is anything fine?

Beth: What would be adjusted is the group size. So, like for instance, in the forests where they're along rivers, they tend to have much smaller groups than in the open Savannah, where there can be larger bodies of water. Like, larger in area, but not very deep. Which is you know, fine for them. In the forest, I think there are group sizes of five to six animals, in the savannah, I had a group that got up to about 90 individuals before it split into two groups.

Aside: Could you slide into one of those groups unnoticed and just live their vegan poolside lifestyle? SteeljawPanda asked: How do I apply to become a capybara? Kinda done with being a monkey, TBH. SteeljawPanda I get it. For both of us: Do they nap?

Alie: Are they just sleeping like cows? Kind of plop down and take a nap?

Beth: Yeah. They don't sleep all night and they don't sleep all day. They have this 24-hour cycle of we nap for a while, we eat for a while, we nap for a while, we eat for a while. And just kind of, in little, shorter bursts.

Alie: Ah, it sounds like vacation every day.

Beth: Doesn't it?

Alie: Yeah. Jess P, Melissa Po, and Alice Ruben, great question, they want to know: Please explain why pelicans want to try to eat capybaras. You know you've seen those videos where a pelican is trying to size up whether or not it could fit a capybara in its pouch? Are they just dreamers?

Beth: Yeah, I would think that the babies might be a snack, especially if the babies are near the water, a pelican might be, "That just looks like a big hairy fish," and then they just get ahead of themselves when they go for something bigger.

Alie: *[laughs]* The pelican's been talking to the Pope.

Beth: Yeah, right?

Alie: Someone asked about Pleistocene-era capybara that were the size of bison. True? False?

Beth: Yeah, there was that fossil found.

Alie: But just one of them?

Beth: I mean, fossils are hard to find. So, if there was one, there were more we just haven't found very many fossils of them.

Alie: We just found that one, I say we as though I had anything to do with this. *[Beth laughs]* Lisa Scanlon Mogolov, first-time question-asker: Why aren't there 140-pound squirrels?

Beth: *[chuckles]* So, I could flip and say because there's 140-pound capybaras.

Alie: *[laughs]* There you go.

Beth: But it has to do with the limitation of habitat. So, if you think about up in the north, there are no capybaras because the weather, the habitat is just too extreme, you have to be able to have enough food to sustain your body over the winter. So, a little squirrel body can be sustained over the winter by the nuts that they scavenge away but that's not going to do it for a capybara or something that large. And then when you get further south and you get into the nicer weather, then they would have to compete with the capybaras.

Alie: Ah, it's kind of like niche plants.

Beth: Yeah.

Aside: And a niche ology, Sciurdology with the lovely Dr. Karen Munroe, which is all about squirrels. What about family ties? Chris Moore wanted to know if capybaras cache food like many of their rodent kin.

Alie: Someone else wanted to know if they cache their food like other rodents, but there's no need to cache grass, right?

Beth: Correct.

Alie: Oh nice. Do they ever come upon shrubs that are psychoactive? There is so much yerba mate down there, right?

Beth: Not that we're aware of but again, they're so chill anyway, how would we know? *[laughs]* What would a trippin' capybara look like? *[laughs]*

Alie: *[laughs]* I don't know! Did you drink a lot of yerba mate when you were down there at all?

Beth: No, I didn't actually because that's more Brazil and Argentina, more than it was popular where I was. Where I was it was the mushrooms growing out of the cow poop is what people really wanted me to collect for them. But of course, I was doing a dissertation, so I was like, you guys enjoy those. *[both laugh]* I've invested way too much.

Aside: Please see the Mycology episode all about mushrooms, of all kinds.

Alie: But the capybaras aren't munching on them?

Beth: No, not that we've ever seen. No.

Alie: Interesting. Aimee Martin, first question is are you familiar with who Post Malone is?

Beth: Yes.

Alie: Aimee Martin would like to know: Why do they look so much like Post Malone? Very specific question.

Beth: They're just lucky, I guess.

Aside: Okay, so capybaras, I looked this up, they have fewer face tattoos and Post Malone has probably zero sticky musk glands. But in this viral tweet a few years ago, it became obvious that the singer-rapper-actor's golden-brown mustache resembled two capybaras meeting mid-lip for a kiss, and if that wasn't intentional, he is the luckiest man in the world.

Alie: *[laughs]* Rachael Gardner was vulnerable and honest and said: I'm irrationally afraid of them. Is there a capybara fact that will help me love them?

Beth: Think of them as guinea pigs instead of rats.

Alie: Okay. All right. And if you're afraid of guinea pigs?

Beth: Well then that's a little tougher *[both laugh]* but they like popsicles.

Alie: Oh!

Beth: It's hard to be afraid of something that's licking on a popsicle.

Alie: So, maybe look for some of their more relatable activities.

Beth: Yeah, yeah.

Alie: Amazing. Oh, Heather Livingston: How fast do their hearts beat? Pretty slow?

Beth: That's a good question, I'd have to look it up. I'm sure that information is out there somewhere. I would expect their heartbeat to be a little slower because of the grass diet.

Aside: For heartbeat facts, you can please see the 2021 study, "Evaluation Of A Laryngeal Mask Airway As An Alternative To Orotracheal Intubation For Maintaining Airway Patency During Inhalant Anesthesia Under Spontaneous Ventilation In Capybaras," which seems to mention it's about 67 beats per minute. I don't know what it raises to when they sniff some musk, or how low it gets with an orange on their head.

Alie: Jenna Congdon says: Has the ologist who shares my last name ever given one a good scratch between the ears? Life goals, right there. But I mostly just wanted to shout out that Jenna Congdon shares your last name and maybe you're related.

Beth: That's awesome, I'm like, hi Jenna!

Alie: Gotta check that out.

Beth: It's not a very common last name. *["We're family."]* When we were measuring them and tagging them and stuff, I would give them little belly scratches and, yeah. I mean, if I'm going to palpate their belly for their penis then they deserve a little scratch too.

Alie: *[laughs]* Pavka34 wants to know: Has anyone ever tried to use capybaras as beasts of burden? Have they been used for carrying packs or has anyone ever tried to use them as livestock that way?

Beth: Not that I know of. Because they're territorial, I think that they wouldn't willingly go very far. They'd be like, "Uhh, this is as far as I walk," you know? But it does seem like that ought to be a yes, fit one with a saddle and you've got to be able to put a nice little pack on them.

Alie: I'm sure someone has, probably to peril on both sides. Not recommended.

Aside: So, I looked for photographic evidence of someone saddling a capybara and y'all I found none. So, I think that's good news. But I did find a saddle bag made of, "distinct capybara suede exterior" which is a bummer. I understand if you need some emotional support after this.

Speaking of mental health, Olivia Lester, first-time question-asker asked: Therapy animals? And yes, according to the 2017 article, "Pet therapy with a twist: Capybara, kinkajou, and owls soothe

stressed students.” Capybara have lowered the heart rates of people who need some of their chill. I don’t know how the animals like it though so I guess look for reputable sources of capybara proximity, or you can just stare at their videos, and you can vibe to capybara capybara music.

What about fun for them? How do they kick back, you wanted to know. Riikka Puttonen and long-time listener, Spencer:

“I assume that they run around and have fun and you know, look for food and everything, but they’re just always looking so chill to us, and I just want to know why.”

And also...

Alie: Mac Chanterelle, first-time question-asker, wants to know: What brings them whimsy, or do they appear like they’re having fun? Do they play?

Beth: The juveniles definitely play. They wrestle and they play, and they flop around in the water, and they have a good time.

Alie: Okay, that sounds just delightful to watch. Something’s got to suck about your job, something sucks about every job. But is there a part of your work that’s your least favorite?

Beth: It’s very difficult to study animals without, at some point, causing them at least a little bit of discomfort. And so, when we capture them to ear tag them and stuff, like I said, we don’t use a sedative because we don’t want to have that negative side effect, but you know, we just stress the little babies out. So, that was very stressful for me and it’s also very hot, so we have to be really careful that we don’t let them get overheated. So, that was absolutely the most stressful for me is the capturing.

Alie: Would you have to spray them with some water or keep them cooled down?

Beth: Yeah. And I lost one [*Alie whimpers*] and it was a horrible, horrible day. The cowboys, the *llaneros* they’re called, captured four or five all at once, and as I was processing them, by the time I got to the last one, it had been sitting still in the hot sun for like, 30 minutes and he had a heat stroke. It was really horrible.

Alie: And you’re out there doing a lot of the fieldwork kind of solo?

Beth: Emilio Herrera my collaborator from Universidad Simón Bolívar, he went out with me the first couple of days of capturing to make sure that I could communicate. The area, the savannah is called the Llanos in Venezuela, and so the cowboys that work there are *llaneros*. And *llanero* Spanish is different than city Spanish. And so, there was a certain amount of training for me to be able to communicate with the *llaneros* to do the capturing. But once I got used to that, then it was me and the *llaneros*. I would go sometimes a couple weeks without speaking to anybody other than the animals.

Alie: Did you have to develop ways to make sure you were taking care of yourself too, in the heat and in the hard physical work and that kind of isolation away from home?

Beth: Oh, absolutely. Luckily there was electricity, so I had a computer. There was no internet and there were no phones, so I had a couple of DVDs and the couple movies I had, I watched the English version, the Spanish version, the French version, the director’s commentary, I had them memorized. And I read books. It was hard for me at first because as a graduate student, you’re just told “Go, go, go. More data, more data, more data.” And there were days when I just had to let myself rest and just take a day off, just lay in my hammock and just be, you know. But it was an amazing experience. I wouldn’t trade it for anything in the world.

Alie: What were the movies?

Beth: *[laughs]* My sister sent me *Castaway* *[both laugh]* which was hilarious because I was like, “This is not helping how I feel.” *[laughs]*

Alie: *[laughs]* Did she send you a volleyball too?

Beth: It was hilarious. The other one, I know I had *Chocolat*. And then we drew a chessboard on a tablecloth and made a chess set out of an old egg carton. At different times, undergraduate students would come and assist me in the field, so I would have someone there with me for a couple of months at a time. I had two come down from the US and then a couple from Venezuela, and a couple from Peru. So, it was also a great way to give undergraduates a way to experience that and then they also kept me company.

Alie: What about your favorite thing about your work? I don’t know how you’re going to pick but yeah, what is the best thing about being a capybara expert?

Beth: I really learned how to just sit and watch them, and I could just sit quietly and have such a peace, I mean, it sounds cliché. But also being there, I saw so much other stuff; a giant anteater carrying a baby.

Aside: Not a human baby.

Beth: The birds, oh the ibises, the scarlet ibises, and storks, and ocelots. I mean, just amazing wild– The anacondas, woo!

Alie: *[whispers]* Oh my god.

Beth: Yeah, they were amazing. So yeah, just all of that experience, right? And I got to just sit there and watch them.

Alie: Did you ever have to get any training on what to do if an anaconda is looking at you like lunch?

Beth: So, the most I got was tips on shuffling your feet if you’re walking through water, you shuffle your feet so that you don’t step on the back of a stingray because then it stings you in the foot. So, you kick an anaconda instead of stepping on it and I’m like, “Oh, that doesn’t… that’s not comforting at all.”

Alie: That’s not reassuring.

Beth: No, not at all. And then I asked once about what do you do if you get stung by a stingray and they said, “Don’t get stung.”

Alie: Okay, all right. That’s a strategy.

Beth: I’m like, oh okay.

Alie: I’m willing to bet that Aunt Beth is definitely the most interesting person at any dinner party. It’s been such a privilege to talk to you. I was so thrilled that you said yes to this. *[laughs]*

Beth: Well, this was so much fun, I love the opportunity to talk about them. It’s so great.

Alie: Well, capybaras for life.

Beth: Yes. Yes.

Alie: Yay!

Beth: And hydrochoerologist, I’m going to put that on my resume. Yeah, I like it.

Alie: It’s all yours.

So, ask chill experts not-chill questions about chill creatures and adopt a dog or a guinea pig and pretend it's a capybara, you'll have a much easier time with poop and probably more cuddles. Thank you so much to Dr. Congdon for hanging out and making my dream episode come true and for killing our hopes of waking up with a capybara snoozing on our pillow, loving us. It hurts but we needed the truth. For more about Beth's charity of choice, see the link in the show notes. We also have more research up at AlieWard.com/Hydrocheroeology, don't worry about it, it's linked in the show notes. Google "Ologies capybara" and it'll take you right there.

We also have *Smologies*, they're short G-rated episodes are also linked as well as our Patreon.com/Ologies. We've got OlogiesMerch.com. Thank you, Erin Talbert, for adminning the *Ologies* Podcast Facebook group. Thank you, Aveline Malek and The Wordary for making our professional transcripts. Noel Dilworth is our scheduling producer, Susan Hale is our managing director and makes sure we are functional. Kelly R Dwyer makes our website and can make yours. And our queen of the grasses is Mercedes Maitland of Maitland Audio, who is our lead editor. Nick Thorburn made the music.

If you stick around until the end of the episode, I tell you a secret, and this week it's that I was eating yogurt and sometimes I let my dog Gremmie lick the bowl because she's like, "Yogurt!" And I let her lick the spoon and then I forgot that I did that and then I licked the spoon afterward, which is disgusting but she's also my daughter so grosser things have happened, probably. All right. Berbye.

Transcribed by Aveline Malek at TheWordary.com

Links to things we discussed:

[Museum Specimen Confirms: Capybaras Once Roamed San Diego](#)

[Rodents of Unusual Size Take Over Gated Community in Argentina](#)

[Huge fucking prehistoric capybara photo](#)

[Another giant size comparison to a prehistoric capybara](#)

[Josephoartigasia monesi](#)

[Josephoartigasia](#) wiki page

[The largest fossil rodent](#)

[I Fell In Love with a Capybara](#) e-book

[Mongolian wild ass](#)

[Speak the capybara](#)

[Capybara Barks. The Sound A Capybara Makes As A Warning](#)

[The Capybaras of Florida](#)

[Status of Capybaras \(*Hydrochoerus hydrochaeris* Rodentia: Hydrochaeridae\) and Potential for Establishment in Florida](#)

[Evaluation Of A Laryngeal Mask Airway As An Alternative To Orotracheal Intubation For Maintaining Airway Patency During Inhalant Anesthesia Under Spontaneous Ventilation In Capybaras \(*Hydrochoerus Hydrochaeris*\)](#)

[Capybara Raises The Alarm, The Sounds Capybaras Make](#)

[Capybara TikTok Song](#)

[Capy in saddle costume](#)

[Giant Rodents 'Invaded' a Wealthy Gated Community. What Happened Next is a Lesson for Cities in the Climate Change Era](#)

[Post Malone looks like two capybara kissing](#)

[Capybara saddle bag](#)

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