

Primatology with Kate Gilmore

Ologies Podcast

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Heey! Welcome to the second episode of Ologies! You made It! Before we move on to this week's episode, let's look back at last week's episode. I have to tell you guys something. Let's sit down. Let's have a heart-to-heart.

So, thank you so much if you listened to Volcanology. I hope you liked it. There was a little bit of a tech diff with the first episode, and whoever subscribed and woke up early and listened to it, a few thousand of you, got totally the wrong episode. You got an older, not totally edited, version of Volcanology that had no format, none of my narration, no sound effects, some weird jump cuts, and you might have no idea. So as you know, I've been working on this project for ten years. I edited the first episode of Volcanology for a couple months and just... somehow the universe felt like kicking people in the dick and somehow the network uploaded the wrong file.

But the good news is the right episode went up that day, and so a ton of people got the right episode. But if you listened to it and thought, "This is pretty good, I guess." If you didn't hear any narration, like what we had in the earthquake kit, [*echoing: canned Vienna sausage*] growing up as a kid, or how to pronounce an Icelandic volcano, [*Icelandic man: Eyjafjallajökull.*] or how I feel about volcano romances - boy howdy, did it ruffle my feathers! - you might want to delete and redownload to get the real version. Let's just put a good spin on it. Let's just call it bonus content. So, enjoy.

Thank you to everyone who has listened and subscribed. Let's just move on. Let's move on to episode two. So you know when you're in a big city, and you're watching people bustle by, and people are wearing suits, and carrying briefcases and coffee, and they're walking around in high heels, and you realize everyone - all of us - we're all just a bunch of smooth, naked apes in underpants. We're just a bunch of primates. Does that ever freak you out? It freaks me out a lot.

Let's talk about the etymology of 'primatology,' though. Primatology comes from the Latin for *prima*, 'of first rank, or chief, of the highest order.' So of course, it's primates naming primates, so of course we named ourselves that. We're such dicks.

This episode about primatology is a dang, ding-dang soap opera. It is full of torrid chimpanzee affairs and backstabbing. Six-year-olds on birth control? There's first steps. There's quitting the entertainment business. Gnat collecting. There's lobster costumes. And really an unraveling of our own feelings by projecting them onto other primate species. At least for me.

This primatologist is a friend of a friend, and it took a certain amount of wrangling, let me tell you, to get her on the podcast, because she's busy as hell! And she's got a kid. She's got another one on the way. We had an email chain; 34 emails back-to-back-to-back! And I finally just, kind of, (air quotes) "happened to pop by the zoo" and just say hi. We met up while she was holding a small monkey, and I just tried to act casual and not star-struck, and finally met her and proved to her I wasn't, like, a weird neckbeard catfishing her for some IRL face time.

So we arranged a time, I went to her lovely home. We sat at her kitchen table to talk about ape genitals for about an hour. So please prepare to learn more than you ever thought you might ever

learn about monkeys, and apes, and yourself, who is an ape. Never forget. You're an ape. Wearing underpants, probably. I don't know your business. I sincerely truly dig this person so much. I got nervous being around her because she's so cool.

So please enjoy professional primatologist Kate Gilmore.

[Intro Music]

Alie Ward: Your levels are good.

Kate Gilmore: I'm honestly a loud and fast talker.

Alie: That's great.

Kate: And I go on really long so you can [*clicks tongue*].

Alie: Okay. I'll interrupt you.

Kate: You're totally fine, 'cause I'll interrupt you, too.

Aside: So, Kate's official job is Lead Keeper of the Great Apes and Old World Monkeys at the Los Angeles Zoo. I think I got that right.

Kate: I usually do the chimpanzees, but I'm the lead keeper over the Great Apes and Old World monkeys. That's gorillas, orangutan, and a whole slew of really cool gibbons and other primates.

Alie: What's an Old World monkey, exactly?

Kate: Those are primates and monkeys that come from Africa. So, New World monkeys would be South American monkeys. Old World are Africa.

Alie: I never knew that.

Kate: Because they're older. And a cool thing, how you know the difference is that South American New World monkeys, they have prehensile tails. They can actually use them to hang, and curl, and things like that. The older monkeys, they're just used for balance and things like that.

Alie: Really?!

Aside: Boom! We're, like, 30 seconds in and we're already smarter.

Alie: I was going to ask you, what's your best... like you're at a cocktail party and someone's like, [*self-important voice*] "So, Kate, what do you do?" And you're like, "I'm a primatologist."

Kate: That normally stops the conversation.

Alie: Does it really?!

Kate: Yes.

Alie: People aren't stoked about that?

Kate: No. They are stoked. Because they go, "Wait, what?" And you go, "Yeah. It's true." So it's kinda fun. Like, I'm a fun date.

I get a lot of questions, and somewhere along in the conversation they go, "I'm so sorry I'm doing this. I just have so many questions." And I say, "You are not— It's fine." Like, I'm very used to it. I don't mind it. If you're going to be a zookeeper, you're going to be super passionate about your job and the animals you work with. We love talking about them. I mean, it's the easiest thing in the world to do.

Questions we get a lot of are: How do you tell the difference between apes and monkeys?

Alie: Okay. How?

Kate: Monkeys have tails.

Alie: That's it?

Kate: Stop. Full stop.

Alie: Really? [*laughs*]

Kate: That's what you need to know. It's not that hard.

Aside: I don't think I will ever forget this fact. And I will never stop looking at primate butts because of it.

Kate: To be fair, most of my barbecues and cocktail parties are with adults because... I'm good at talking to... You have to be able to talk to 4-year-olds about this stuff, and college people, and adults about this stuff, so you have to really tailor what you're going to say.

But when I talk to most adults at barbecues and whatnot, they always ask about sex, and like, "Well, I heard that bonobos have sex all the time." Like, okay. Here we go again. They want to know the difference of bonobos and chimpanzees. And so the fact that I

always put out that always makes them do a spit take is that you can tell what kind social society a primate has by looking at their testicle size.

Alie: Tell me everything.

Kate: Tell you everything? You got it.

So if you have... like, in a chimpanzee society, they have lots of males and lots of females all living together, so there's a lot of sexual competition. The males have to breed with all the females and none of the males know which babies are theirs. It helps the community because then the males all have to help watch over the babies because it could be theirs; it could not be. They don't know. But that means that they constantly have to be breeding all the females.

Alie: Oh god.

Kate: That means that they have sex, like, ten times a day. And then each one has to be successful, so they have something like a two to six billion sperm count per day. In order to do that, they have to have extremely large testicles.

Alie: Oh my god, they have monster nards.

Kate: They have monster nards. But, then you're like, okay, but what about a gorilla? Gorillas are huge. They're among the largest great apes. Well, in a gorilla society, you have one male and a whole bunch of ladies. He's not competing with anybody most of the time. He doesn't have to prove anything. He doesn't have to breed them ten times a day because they know that they're his, and he knows that they're theirs, so his balls are teeny tiny.

Alie: No waaay. So to have big balls means that you're kind of a cuck.

Kate: Yes.

Aside: I wanted to see how humans compared and I now have, like, six tabs open on my computer about sperm. It seems like the average per human is probably around 200 million a day, but it varies a bunch. Hooman to hooman.

Now, chimps, bonobos, they need more ammo, 'cause they don't have as much standing or rank. So they have more ammo than humans; gorillas and orangutans are like, "Naw, dawg. I'm good. I don't need that big of balls, 'cause I know whose kids these are."

So, next time you see someone with a pair of truck nuts on their vehicle, just pull over. Let 'em know; those things should be marbles if you really want to show what an alpha you are. You're doing it all wrong. Also? Why did you put testicles on your car? That's weird.

Can you imagine if your mom hung a synthetic vagina off of her exhaust pipe? Just to show how fertile and maternal she was? That's weird! Okay. Back to gorillas.

Alie: So with the gorillas, they have these tiny sacks.

Kate: Teeny tiny.

Alie: Because they're like, "all of the ladies are mine."

Kate: You only need to have sex once every few days, maybe. So you just don't need a lot.

Alie: What happens to the beta and gamma males, then?

Kate: For gorillas?

Alie: Yeah.

Kate: Well, it's usually one male and the females, so when an offspring male gets old enough to, kind of, be a little bit competitive with Dad, they leave. And then they form these bachelor groups. So you have these groups of males, young males that walk around, hang out, get big and strong, practice being really tough, and then when they think they're ready to take over, they'll go find another group and try to kick that silverback out. So then you have an old man get booted, and then a young stud comes in and takes over all of his ladies.

Alie: Ooh. Ouch.

Kate: Yeah. But for chimpanzees, which all live together, you have the alpha, beta and all the other males there. All of them can breed. It's just that the alpha males will probably get more and get the best ladies, but there are lots of different breeding strategies. So, all of them have very large testicles so that they can, because even the ones that are super low-ranking can do sneak breeding.

Alie: What is a sneak breed?!

Kate: A sneak breed is when a male will, kind of like, catch an eye of a lady... and it's exactly what you think it is. He goes, [*clicks tongue*] and then she'll kind of nod her head, and they'll go behind a tree and do it.

Alie: Why behind a tree? So that no one knows?

Kate: So that the alpha male doesn't see him. So if he's low-ranking, he could get his butt kicked for taking a nice lady.

Alie: Do you think that the female is like, "I'm gonna go bone this guy behind a tree." Is she embarrassed at all?

Kate: No.

Alie: No, she's not. Okay. They're just doing it behind the back of the alpha.

Kate: We can tell in our group... At the LA Zoo we have 18 chimpanzees. It's one of the largest multi-mammal [*inaudible*] groups in a zoo setting in the country - actually *the* largest at 18 - and we watch them a lot. That's part of our job, to observe and get to know this group extremely well.

Alie: I mean, 18. That's like *Bachelor of Paradise* numbers. So that's like a whole...

Kate: It's pretty nice. It's 7 males and 11 females, and we have 4 generations ranging from two-and-a-half years to 50 years old. So, we really have been able to recreate a group that you would see in the wild, which is awesome.

But because we watch them so long each day, and over so many years and generations, we know that there are males that have certain females that they always find very sexy, and there are females that some males are kind of in the friend zone. They might get lucky occasionally, but for the most part they're buds.

Any time they can, they'll just go ahead. We have a late-teen male who's not quite an adult but is certainly starting to make his mark. And so I've been working with him for six years, and six years ago he would always sneak breed. He always had to sneak breed. And now he's doing it right in front of the alpha, kind of watching him like, "What do you think of me now, bud?"

Aside: If you like drama, you will love chimpanzees.

Alie: Does the alpha kick his ass?

Kate: Yes.

Alie: And then what happens if they get to a point where there's serious fighting? Teeth. Blood. What do you do?

Kate: That's a good question. Another thing that people are confused by, they hear things through pop culture of like, "So, like, they're gonna kill you, right?" is a question we get. Like, "What happens if you go into the exhibit?" Well, they'll kill you. They're very territorial. They're very strong. And they're very aggressive by nature.

They also have very wonderful sides to them. We see most of that almost all the time, but they do have a very dark side. Much more so than the other great apes. So, fighting is very normal for them. It's very common in the wild or in captivity. It's what they do. It's how they release a whole lot of their energy. But if you sit and you watch a fight, and you just wait, they make up really, really fast.

Alie: They do?!

Kate: Yeah. So the community is thicker than anything. They'll defend each other to the death if they need to against outside chimpanzee groups, or outside forces of predation, or what have you. But within the group they piss each other off all the time.

Alie: How do you know when they've made up? Like, do they do a certain hug, or are they like, "We're cool."?

Kate: They really communicate through vocalizing, facial expressions and body positioning. If someone is apologizing, they would put their wrist in the other chimpanzee's mouth.

Alie: What?!

Kate: It's a very trusting thing of like, "Are we good? Are we good? We're good?" Because then, like, "I'm trusting you to put my body part near your mouth and you're not gonna bite me," so like, "I'm so sorry, I'm so sorry. Are we good?" And they'll do that, and they'll be like, "And we're cool." And then they'll groom.

Grooming is like the equivalent of brushing someone's hair or massaging them. It reinforces social bonds. In the wild it's also used to clean them of bugs, and dead skin cells, and stuff like that, but captive chimps should be a lot cleaner than that. So for our guys it's mostly social bonding. We normally find that when males... and again, chimpanzees are aggressive, and they're violent, and pretty unpredictable and [*voice softens*] lovely, too. They do have that side.

Usually when the males go after the females they use their hands and feet. There's a lot of punching, hitting, jumping on. And again, chimpanzees are built to withstand this. I say, "Chimpin' ain't easy."

Alie: [*laughs*] "Chimpin' ain't easy"?!

Kate: Chimpin' ain't easy. They are very tough. They are built for this.

People get upset seeing that because they are so humanlike, they kind of turn them into humans and are like, "Oh my gosh, you have to do something!" They're not humans. They're chimpanzees. They're completely different. This is what they are built to do.

So, the males will usually use just hands and feet to just kind of beat on the females. The females have no problem using teeth and nails and will just bite just anyone if they're really upset, too. So it's not just the males doing it, the females are really nasty.

Aside: Takeaway? Do not fuck with a chimp.

Kate: Occasionally we run... we like to have all our chimpanzees running in one big group because that is much more natural. Through different medical reasons or social issues

over the last few years, occasionally we do have multiple groups. One time we were experimenting with just an all-male and an all-female group. The boys got along fine. There was no problems. They were chilling out, relaxing, I mean, the calmest we have seen them in years. The females lasted two days before they started turning on each other.

Alie: Really?!

Kate: It was complete *Mean Girls*.

Alie: No! It was like *Real Housewives*?

Kate: Awful. Awful, awful. We're like, "What are they doing?"

Aside: I was very disheartened and curious about this, so I ended up doing some research, and I came across this paper titled *Female Competition in Chimpanzees*. What I learned is that females disperse from their family when they come of age and then they go into groups of non-relatives. And so they have to compete for food with unrelated females. So competition, I suppose, becomes more ingrained.

But also I wanted to find out what that said about us as humans, because we can't learn about animals without projecting them onto our own behavior. So the paper says:

Enhanced cognitive ability may have led to the evolution of indirect competitive strategies where human females could avoid physical injury but nevertheless harm their rivals such as through gossip and social exclusion.

So, the next time someone calls you a bitch, or doesn't invite you to their bachelorette party, maybe it's because they consider you competition for their resources. I don't know.

Next time you're feeling bitchy towards someone, ask yourself, "Am I worried that somehow this will lead me to have less food or shelter?" I don't know. Who knows? But if you're gonna project and go down weird avenues where we become introspective about human behavior, let's just all agree that insecurity is one of the roots of evil. This is true for females and males. Okay. Onward.

By the way, this is the opinions of the podcaster Alie Ward and not necessarily the primatology community in whole. Let's get back to how they decide on which male they throw in with a group of persnickety ladies.

Kate: And so we just are like, "They need some testosterone." They just do. It's not very feminist to say, but the female chimpanzees, they need males. So we can just move one, like, the lowest ranking male we have, move them over to the female group and the females are good.

Alie: No way. How did you determine, like, “who's the biggest loser chimpanzee that we can throw in with the ladies?”

Kate: We know. It's pretty obvious.

Alie: Really? How can you tell?

Kate: Access to mates and access to food, and like, the best sleeping places. So, if you have a male sitting somewhere and you throw him something really yummy, like an apple or a pear, and a female walks by and he doesn't even pick up the food, he looks the other way and pretends he never saw it so the female can come get it? Well that's pretty sad. But he knows that if he picks up the fruit, she's going to go after him. And if a female goes after a male, you know he's really low-ranking, 'cause in chimpanzee society, the males outrank the females.

Alie: Oh my god. So, wait. Access to females, food, and sleeping places. So if a dude is a buster, he won't have a girlfriend, he'll have maybe a shitty place to sleep, and only eat Wendy's or something. Do you do that a lot? Do you apply lessons with primates to humans too much, and you're like, "Okay. There needs to be a line, here."?

Kate: I think an important thing for us is - and it's hard sometimes - is like, I look at one of my chimpanzees and I see Yoshi. I see Pandora. I see Shaun. I see Ben. And you have to remember that, no, no, no, no, no. They're chimpanzee first.

It's kind of the same with people and dogs. You know? They're a dog first. But you see them as Fluffy, or Rover. No, no, no. But what their needs are? Is dog. First. So we know that, but the patrons do not. They just see them as things that, kind of, look like people and should be treated as such, so some of the things they see they don't quite understand.

Alie: Who gets to name these chimps?

Kate: It depends. Usually it's the keepers that name them. But a lot of them are adopted through donors.

Aside: So in the past five years the Los Angeles Zoo has had five babies born, which is very adorable, and they decided to name four of them in Swahili, which is the predominant culture where chimpanzees come from, and they also have some with American names. Like there's Ben.

Kate: Ben the chimp.

Alie: And I read a little bit about Ben. Ben's fathered quite a few chimpanzee babies, hasn't he?

Kate: Yes. He's had four. So, going back to the breeding of our chimpanzees. Chimpanzees, they breed all the time. They think it's really fun. We don't stop them from that. We couldn't even if we wanted to. So all the females are on birth control.

Alie: What?!

Kate: Just like the pill. Yeah. They take the pill. We pop out a pill every day for them in their little pill packs.

Alie: Are they veterinary-grade?

Kate: No, no, no. They're just our pills.

Alie: Noooo...

Kate: They take all the same medications that we do. Because their physiology is so incredibly close... We share 99% of our DNA with them, which is super crazy.

Alie: Right. So you pop out, like, an Ortho Tri-Cyclen and you're like, "Here you go." Do you put it in their food?

Kate: Yeah. We crush it up and put it in juice for them every morning. We have some that are on blood pressure medicine, for the older ones. The ones that are being watched for heart issues because of their age will get a baby aspirin, just like a person would. You know, if they're sick they can get antibiotics. We do cultures to make sure we're giving them the right ones.

Alie: No Adderall or Viagra or anything?

Kate: They do not need that. *[laughs]* Nope. They're good. Not many behavior modification drugs, just more medical ones.

Alie: Do you learn a lot about human behavior from watching primate behavior? Do figure out what makes you grumpy?

Kate: Yes. Yes. Absolutely.

Alie: Like what?

Kate: People also want to know why do I have my job, like, what do I find so interesting about them, because you can be a zookeeper and work with pigs, or giraffes, or yellow-legged mountain frogs. Not everyone's a primate keeper and not everyone's a chimpanzee keeper. We are, kind of, few and far between to be found. We are super passionate about chimpanzees because they are tough. They are very, very difficult to take care of, and very challenging, and so in order to stick it out and do it, you have to really, really adore

them and love them for who they are. That also means accepting their good sides and their dark sides.

One of the reasons I really like them is that everything they feel, they feel at a 10. They're happy at a 10; they're upset at a 10; they're sad at a 10; they're loving at a 10. They have no filters. They cannot do that. They don't understand how to do that. So if someone's pissed off at someone else, they let them have it. And then once they're like, "We're cool." Sit. Groom. We're good. We just cover everything up, but the emotions are all the same. Absolutely.

Alie: Have you changed your behavior since becoming a zookeeper?

Kate: Actually, I decided to breastfeed my son after watching them do it, because I had gone through three pregnancies and births with them. And for my own reasons I hadn't been planning on breastfeeding, and I was like, "Y'know what? They are our closest relatives, and they seem to figure it out okay, so maybe I should give it a shot." So I did.

Alie: You know, I have talked to one other primatologist, not interviewed for the podcast but was just was chatting with her, and I asked her if there was anything about primates that has changed her own behavior and she said literally the same thing. She said she decided... she breastfed her kid until he was like six or something. She was like...

Kate: Okay, my eyes are getting really big...

Alie: Yeah. I know. I was like, "That's a long time."

Kate: To each his own.

Alie: He was like 5 or six. But she was, like, watching these apes and seeing how that developed a bond between the mother and the child. But it's interesting that is the same thing that you took away from it.

Kate: It's the natural biology. I was like, "I'll give it a shot." Now, I only made it three months. *[laughs]* So for any of the breastfeeding advocates out there, you know, do whatever, I don't care.

Alie: Would you say that your children were raised in captivity? I guess they kind of would be, I suppose.

So what made you love primates so much? Why did you become a zookeeper?

Kate: Why do I like...? I don't know.

Alie: Really?!

Kate: Growing up, I was a science kid, but I changed a lot. So it would be like, paleontology first and then I did.. there was definitely a whole astronomy thing, and space, and then around fourth grade... I was a very early reader as well. In fourth grade my mom got me the book *Gorillas in the Mist* from the library. I just dog-eared that thing, and I was like, "Gorillas are amazing!" And then after that around seventh grade I know I wrote a paper about being a microbiologist, and then eighth grade it was marine biology. I was very scattershot.

But primates, I always thought they were cool. You don't have a lot of connection or experience with them, so it wasn't something that I was around all the time. I would go visit the zoo and they were always my favorites. I went to the Bronx Zoo, that was my zoo growing up. And so they were always my favorites.

Aside: Kate says that she got off track a little bit in college because she found what she was really, really good at naturally was writing, and reading, and editing, and doing more communications, journalism kind of stuff. So, in college she was doing that.

Kate: But then all my extracurricular and extra credit things were still paleontology, and invertebrate biology, and environmental law, and I looked as a senior and I was like, "What am I doing?!" Like, this is not normal! It was too late to switch, so I finished that degree and then went back to get another Bachelor's in zoology. So like, this is clearly what I should be doing. It's not something I'm naturally great at. I have to work at it, but it's what makes me really happy.

Alie: Zoology? What does it mean to work hard at zoology?

Kate: You have to do a lot of science classes, including stats and vertebrate biology. You learn all about trilobites, up to the higher-form chimpanzees, and whales, and dolphins, and things like that. You also have to have no ego, because you need to gain a lot of experience, and that starts out very humbling. My first job... and again, I started a little bit later. I wasn't sure about my path early on. My first job was dressing up like a lobster outside of the New England Aquarium as a 20-year old.

Alie: What?! To what end?

Kate: Yeah! But I did it so I would get that internship credit as an education intern to teach kids about marine life.

Alie: And how hot was it? Was it hot in there?

Kate: It was awful.

Alie: [laughs] Really?

Kate: My antennae were really long.

Alie: Would people come and hug you, or would they scream?

Kate: Who doesn't want to wave hi to a lobster on the street? Okay... a sanctioned lobster, like as long as you're somewhere you're supposed to be.

Aside: By the way, I was desperate to see a photo of a person in a lobster costume, so I went to the New England Aquarium's Instagram and I did a deep dive, which right now I'm realizing, that is an egregious pun. I'm sorry. Deal with it.

I didn't find pictures of anyone in a lobster costume, sadly. But I did find one of a human being wearing a plush hammerhead shark getup. Kind of like a mascot of the sea. It was glorious. If you like looking at fish, get hip to the New England Aquarium's Instagram, because it's very relaxing to look at.

Alie: So that was your first internship.

Kate: Mm-hmm, [affirmative] at the New England Aquarium, and then I did several different... I had to learn to live out of my car and pack up because in the zoo world, again, you need education and you need experience. I had a job for the summer camping out on the Plains and it sounded very fancy because we were doing neonatal prey identification of plovers...

Alie: Damn.

Kate: ...which basically means setting up bug traps and picking through bugs to see what bugs live on the Plains.

Alie: Really? But a plover, that's a kind of bird?

Kate: Mm-hmm. [affirmative]

Alie: So how did the bugs and the birds.. what were you exactly... what data were you gathering?

Kate: We needed to know what the baby birds were eating, because it was someone's grad project and I was the grunt worker on there. So it was like, I will look through this vial of 222 gnats and let you know how many of them are this kind and how many of them are this kind. And I had a little ID chart because I'm not an entomologist.

Aside: So she went from gnats to primates?

Kate: There were chickens in between. They were fancy chickens. Fancy, very endangered Attwater's prairie chickens in Texas. You start small.

Alie: When you landed at the LA Zoo, did you have a choice between gorillas and chimpanzees?

Kate: Oh, no. When you are starting out in the zoo world, and again it depends what animals you like, but you can't really be picky. There's not a lot of zoo jobs out there and there's a lot of people that want to do it. It's not high paying. It's not glory work. So, the people who are doing it really want to be doing it, so they don't get discouraged very easily.

So, you have all kinds of stories of people volunteering for five, six, seven years before they get a part-time job, before they get a full-time job. People who work in the education departments, and the docents you see, and even probably some of the service staff you see at zoos want to be zookeepers. Once you're a zookeeper, you don't tend to leave. You attained it. It's a hard job, but you wanna stay there.

Alie: Plus, you have a whole posse that you're friends with. You've got, like, 18 chimpanzee friends, you can't just leave.

Kate: Right!

Alie: What is a typical day like for you? Run me through fast-forward. Do you first come in and do feedings, do you get there at five in the morning?

Kate: Our days are pretty... We are 8 to 5. But most zookeepers will work weekends and holidays. So... That's awesome. If you work long enough, maybe they'll give you a Sunday off or a Saturday off. I'm now up to having a Sunday-Monday off, which is super cool.

Our days, especially with chimpanzees, they can be different, but for the most part a regular day would be coming in, first thing you'd do your AM check, make sure everyone's okay overnight, make sure there were no fights, treat any new wounds there might be. We do medical care in the morning, so all of their meds get given out, kind of, checks everyone. Then we clean the main exhibit. That can take anywhere from half an hour to two-and-a-half hours depending on how many days they've been out there, or what's been going on, or if we gave them something fun to play with and they've ripped it into a bajillion pieces, we have to clean all of that up.

So, we set up the exhibit and then we open the door and hope that they go out. Chimpanzees are very smart, so a good way to keep them happy in captivity is to give them as much choice as possible. If they want to go out, great, if they don't, fine. They can do whatever they want. We work them in a fission/fusion management style, so that mimics the wild, so they can decide who they want to be with and where they want to go.

Aside: So a fission/fusion society - I just looked this up - is one where a group changes its size or the composition depending on the time. So you might have a bunch of animals all sleeping together, and that would be fusion, or they might split off, which would be fission. They might go into smaller groups, depending on the day to forage, or one might sit in a corner and look at their phone during a party.

Kate: So, we'll have whole family groups decide that they want to splinter off and not join the others for the day, and that's fine, we'll just put them back together at night. Let's say they all decide to go out, which most of the time they do. Again, they are a big family, even though they piss each other off, they're a big family. So, most of the time they go out. Then we spend the next four hours cleaning the areas where they just were.

We have a three-story building and whole secondary enclosure that we clean. We do some educational talks, and then we spend most of the afternoon getting ready for dinner, so it's making behavioral enrichment, which we give them two to three times a day to keep their minds and bodies nice and active.

Alie: Like fidget spinners, or weights, or what?

Kate: They would just smash those. That is not enough for a chimpanzee. Nope.

Aside: Or, because this is Los Angeles, they'll have the crew from *Planet of the Apes* come in to record chimpanzee vocalizations or to watch how they move. These kinds of things probably don't happen in other parts of the country, but it's LA.

Kate: Enrichment, dinner. Notice I haven't sat down much during the day? We do get a lunch in there sometimes, occasionally, in the middle of the day.

Alie: How many steps a day do you walk? Do you have a Fitbit?

Kate: I had a Fitbit, and a regular day was about 22,000.

Alie: Damn!

Kate: And I was like, "Oh! Well, that's not even before I get home and run after my toddler, so I'm not gonna wear this anymore. I think I'm good."

Alie: Yeah. You're good. That ten miles a day, plus. That's crazy.

Kate: Yeah. So we are moving, moving, moving.

Alie: Do you have to keep a log? Like, "Today Yoshi and Donna really went at it."

Kate: Oh yeah.

Alie: You do?!

Kate: Yeah. I call them my KDRs, Keeper Daily Records. Daily Reports. We have a copy at the building, so any keeper coming in can see what's been going on, and we keep them for the last decade.

Alie: And that's all hot, hot gossip.

Kate: It's all hot gossip. It can be boring stuff, like, "Hey! We caught three rats today. This is where they're living, so we're going to keep catching those." Or it could be something where some chimpanzee started on a medication or one finished a medication. Or it's behavioral, like, "Today Glenn and Shaun were fighting and that doesn't normally happen between the alpha/beta so that's kind of interesting; we'll keep an eye on that." Or someone is swelling, wouldn't shift, and the boys just sat with them all day.

Aside: I was like, "Swelling, what?!" [pause] Oh, go- okay, *that kind* of swelling.

Kate: We need to track swellings and cycles. We have a five-year-old female we're keeping a really close eye on to see when she has her first sexual swelling, 'cause when she does, we need to start talking about birth control for her.

Alie: At five?

Kate: We're starting to look at five, probably by six we'll need to put her on birth control.

Alie: Is that normal, or are kids just growing up too fast these days?

Kate: It's being careful. It's pretty normal. In captivity, the animals do tend to breed a little bit earlier because they have better access to nutrition and very good health care in an AZA-accredited zoo.

Aside: What is an AZA-accredited zoo? I had no idea. So, the AZA is the Association of Zoos and Aquariums. In response to some shady animal exhibits, a group of animal husbandry and wildlife experts began doing, essentially, inspections. So, according to their site, it's not easy to get. Only 10% of the roughly 2,800 USDA-licensed animal exhibitors in the country are AZA-accredited. It's a pretty prestigious thing. So in an AZA-accredited zoo, healthcare? Pretty good.

Kate: Very good healthcare in an AZA-accredited zoo or sanctuary. Really good healthcare.

Alie: No co-pays...

Kate: Overall they're healthier, so they develop a little bit faster. So they typically wouldn't have a baby until twelve, but in captivity that can happen much earlier.

Alie: And what's their lifespan?

Kate: About mid-40s, mid-50s. And in the wild and in captivity it's basically the same, but it's not black and white because the infant mortality in the wild is so high. It's like if a wild chimpanzee gets to age 12, they really should live to be about 50. But not as many do. And in AZA zoos and sanctuaries, you have very, very low infant mortality rate because, again, we can intervene if you have a baby not eating, for instance. Our chimpanzees are not going to die of malnutrition because we weigh them, and keep close tabs on their

health, and if someone who is low-ranking is not getting their proper allotment, then we do supplemental feedings for them to make that they are.

Alie: There's also, like, no leopards in your enclosure.

Kate: There are no leopards. Nope. No lions. No hunting. Big benefit. Poachers, not so much.

Alie: *[laughs]* In a zoo.

Aside: I was listening back to this and I realized: I don't really know how I feel about zoos. I don't know if you know how you feel about zoos. Zoos seems great for the apes, but are they? I don't know. And I think when I was doing this interview, I was having such a lovely time talking I didn't even take it in that direction, which was a little irresponsible.

So, I sent Kate a 35th email and I asked her what does she say to people who don't know how they feel about zoos. What does she say to people who don't like zoos? What's the deal?

And she wrote me back a really great, concise, informative thing. I'll read it to you real quick, just because I think it's really good to get straight from a primatologist zookeeper's mouth. And by "mouth," I mean "fingers and email." So, here's what she said:

So most people are opposed to zoos because they believe that animals belong in the wild instead. However, there isn't much wild left. Most of our wild populations of endangered species around the world are living in managed areas that are susceptible to corruption, and illegal poaching, and timber removal, also the illegal pet and bushmeat trade.

Animals in captivity in accredited zoos and sanctuaries are born in captivity and they act as ambassadors of their species. They teach millions of people about their wild counterparts and how to help them. There's a lot of information about zoos that's very outdated and incorrect. So if you're not sure, visit your local zoo and learn. Talk to the education staff, talk to the docents, the animal keepers, and learn about the care which can be exquisite and the work that they do on behalf of the species to conserve, and protect, and advocate for it, and for the biodiversity of the planet.

I thought that was interesting. But let's, as apes, talk about apes talking.

Alie: Do chimpanzees grunt more?

Kate: Mm-hmm *[affirmative]*. Yeah they do pant hoots, like, their hello, would be like *[low and breathy]* ha-ha-ha-haha, like that. They also tickle, like, they laugh when they get tickled.

We don't really tickle the adults, but the adults would tickle each other and the babies as well.

Alie: And they laugh?

Kate: Oh, yeah. That's like, "Ha-HAAAAA-ha. ha-HAAAAA-ha-ha-ha."

Alie: That's so creepy!

Kate: It's awesome.

Alie: Wait, did you call them "pant hoots"? 'Cause I want that to be my DJ name now.

Kate: Pant hoot?

Alie: Pant hoots. *[laughs]*

Kate: Jane Goodall does the most amazing pant hoot I've ever hear a human being do. *[clip of Jane Goodall pant hooting, then says "Hello!"]*

Alie: Is she a hero of yours?

Kate: Yes. I've met her a couple of times.

Alie: She's, like, the dopest, right?

Kate: She's the dopest. I got to meet her a couple times over my career, which is incredibly lucky. She can command a room talking in a whisper, and I've never seen anyone be able to do that.

Alie: Does that come in handy when you're in the mist with gorillas?

Kate: I'd imagine so. She did chimps, not gorillas.

Alie: She did chimps and not gorillas?! Why did I not know that?!

Kate: Jane Goodall is chimpanzees, Dian Fossey was gorillas.

Alie: Oh my gosh. I'm so sorry. It's so gauche of me.

Kate: And Biruté Galdikas was orangutans. Those were the Leakey trio, the three women that Louis Leakey gave incredible opportunities to.

Aside: Okay, this just sent me down a labyrinth, learning about the Leakey trio, which is... in hindsight, very unfortunate branding, but they're also called the Trimates. These were three women commissioned by an anthropologist named Louis Leakey in

the 1960s to study primates. And Jane Goodall was hired as his secretary but then he sent her to study chimpanzees. She became... Jane Goodall.

And Biruté Galdikas, German-born... [all phonetic]: Berrootay Galdakuss. Birutay Galdackus? Galdackus. Birutay Galdakuss... Oh gosh... Birootay Galdakahss... Okay. I think it's Berrootay Galdeekass [ph.]. She was hired to study orangutans, which it is almost impossible not to say 'orangutangs'. And I've had to edit out so many times that I've actually said 'orangutang'. It's 'oranguTAN'. It's so hard. Anyway.

Now, Dian Fossey, who studied gorillas, was hired after she traveled to Africa in 1963. Just wanted an adventure. And I'm just going to shamelessly quote Wikipedia here, because it's one of my favorite sentences in the English language. "She came to Leakey's attention by spraining her ankle, falling into the excavation, and vomiting on a giraffe fossil." This whole situation sounds like a really good Jennifer Aniston movie, and I love it.

Also?

Alie: Why do you think some of the best primatologists are ladies?

Kate: Woah...

Alie: Or do you think it's just chance? Do you think it's a coin flip?

Kate: There have been a lot of theories and books written on that. I think those were the '60s that those women started. I can really only speak to Jane Goodall because she's the one I know the most. But she didn't have the science background. She didn't have all these preconceived notions of what she should be doing. So she just came in and figured it out with very low energy, and not a lot of assumptions, and was very open-minded rather than being trained in 'this is how you do things,' which would not work with chimpanzees.

You can't come at a chimpanzee, you have to just... be, and see if they accept you and then once they kind of do, you can work to get closer to them. Most of the people who work with chimpanzees are females, but that's also because in the zoo world it seems to be a little bit more female-oriented, but there are certain species that men seem to gravitate more towards.

Alie: [*surprised*] Really, like what?

Kate: Like elephants and hoofstock, like giraffes and things like that. But primates... I don't know. I'm very biased - I'm a female primatologist - but primates are very, very difficult, and you have to have an incredible amount of patience, which we don't all have all the time every day. But you need to be very, very patient, and understanding, and open minded, and they're going to thwart you any chance they can.

That's what they do, and we always say around the chimp building, like, 'chimps win'. Every day the chimps win and you just have to let it go and do your best to work with them and give them what they need. They might not need what you want them to have, and that's okay. And I think women tend to be a little bit more relaxed and less controlling.

Alie: Right, a little more nurturing, perhaps, overall?

Kate: [*slowly, deliberately*] A little bit more, perhaps. We had several males on the staff and the chimps thought they were great. So that's not a disqualifier for anyone out there, it's just... we've had women with big, loud, energy personalities that the apes are kind of like "eh," and it took her a lot longer to get integrated, whereas we've had men come in on their first day and the chimps are like, 'you're cool', so I think it's energy.

Alie: That makes sense, so the more chill you are, the better.

Kate: Yeah, they feed off energy.

Alie: So, do you think that has helped you to modulate your own, has that chilled you out at all?

Kate: No, but it just means you put on a total facade! [*both laugh*] It's hard because we all have personal lives as zookeepers, obviously - everyone does - and it's hard sometimes, you cannot bring that into work. Like if I'm upset or stressed out at something at home or my personal life, the animals will sense that and will immediately do the opposite of everything you want them to do, which will make you more upset, make you more frustrated. It's not good.

And those people do not do well working with animals. You have to be able to compartmentalize and stop, "My phone's in my pocket but I have it on buzz and I'm not going to check it, because I've got to deal with this in front of me." And they have all their own problems too, so I have to be super focused, and that's hard when you have stuff going on.

Alie: I bet! But is there something about it that makes you so happy that you maybe shift mood just because you like being there?

Kate: Oh yeah. I mean, some days are really hard. There are some days when, you know, we don't have enough staff. There are days we're there when we're tired. There are days when we're hurt. There are days when we're sick and we shouldn't be at work, but the animals need us so we just make it work. And every single day something happens that makes it worth going. I love my job.

Alie: I have questions that people want me to ask you. This is kind of like a rapid-fire round.

Kate: Okay, I'll do my best. Can I say, "I don't know" or, "that's insane"?

Alie: *[laughing]* Yes, you can say "I don't know"! Do you like dumb questions in general?

Kate: Yes.

Alie: I always feel like, "ask smart people dumb questions" because chances are, other people are other people in the room must have that question.

Kate: Probably.

Aside: Also just in general, every once in a while you might hear a thumping noise. There's no-one sneaking up on you in your home or on your commute right now. Kate's dog was just in the corner, and thumping it's butt around. So if you hear a little noise I'm so sorry, in post you can't remove an adorable dog's butt.

Alie: Okay, you ready for some questions?

Kate: Yeah, go for it.

Alie: Shannon [ph.] wants to know: Do monkeys have fingerprints like humans do?

Kate: Yes they do! Fingernails too.

Alie: Really?! Do they bite them off?

Kate: They stay pretty short just by their natural crawling around and stuff, but they are pretty short. Some of them, we call them witch nails or coke nails. And we really want to trim that but we don't because they can take care of it themselves. They groom themselves and groom each other. If we give them a mirror they'll pick their teeth and they'll pluck their facial hair and things.

Alie: Isn't that a big thing in philosophy and psychology, that if you can recognize your own reflection, does that make you...?

Kate: Really, really smart.

Alie: Right? Is that common with apes?

Kate: Yes.

Aside: Okay, I vaguely remembered that this was a thing, so I looked it up and it's called the MSR, or mirror self-recognition test. Maybe you've heard of it, the idea that *[low, stereotypical stoner voice]* "if you can recognize yourself in a mirror it means something about your consciousness." Researchers essentially test to see if an animal

understands that its reflection is itself, or another animal. Kind of like when your college roommate got stoned and stared in the mirror forever.

Not a lot of animals pass it. It's said that dogs don't, but great apes (like chimpanzees and possibly gorillas) pass, killer whales, dolphins and a bird or two have passed. It's essentially a way to test via laboratory if you are clinically woke. But it's also been said to have flaws, it's not considered law. I don't think they've done any studies where they make animals take selfies, but if they do, please ship me in a pod out into space and leave me there.

Alie: That was not a rapid-fire question, I'm so sorry. JR [ph.] wants to know, what's the deal with Bili apes?

Kate: [*quizzically*] Bili apes?

Alie: Have you heard of them?

Kate: [*jokingly*] They're a form of William apes?!

Alie: [*both laughing*] I don't know, I have no idea! I will look that up, I have no idea.

Kate: No, I don't know.

Alie: I don't know what that is... Maybe it's just...

Kate: Short form of William apes. My neighbor? I don't know!

Alie: [*imitating male voice*] "William's my father, call me Bili."

Aside: Alright, if this question seemed mysterious just wait until you find out what the Bili ape is. It's from the jungles of Bili in the Democratic Republic of Congo, it's also called the Bondo mystery ape. I just spent 45 minutes watching videos trying to figure out if those jungles are pronounced "Billy" or if it's, like, "Billay" or something and that's why it didn't click when we were first discussing it, but I found out that yes, it's "Billy," and the mystery apes are apparently very large chimps that have gorilla-like habits of ground nesting.

Also, NBC sent a reporter to go capture footage but it was a five-minute segment of this reporter flying in, camping, rolling up his pants, wading through a small stream and then leaving with nothing. No footage. They didn't see any of these mystery apes. So, chimpin' ain't easy but Bondo mystery apin'... even harder.

Alie: Mike [ph.] wants to know, why are apes still around if humans evolved from them? This is a question that he feels like people who don't believe in evolution ask.

Kate: Okay. Apes did not evolve into humans, humans did not evolve from apes. There was a common ancestor. Twenty million years ago, the smaller primates shot off. So goodbye monkeys, off they go, and then you have this other creature. Fifteen million years ago, the orangutans split off - goodbye orangutans. Next, around eight million years ago, goodbye gorillas. Woop, off they go! Five to six million years ago, off go the chimps. What was left became humans.

Alie: Got it, perfect. Thank you. Apparently that question is asked by...

Kate: Super common. Like, why aren't there little hybrids around? They just found out that in Kenya there does seem to be about a million-year window where humans, or an early form of human, was around at the same time as the chimpanzee. There's not a lot of chimpanzee fossils out there because of the nature of their rainforest habitat, they don't fossilize real well.

Alie: That's a good point. And then the New World monkeys, did they just split off like...

Kate: Yeah that's, like, the twenty million, off they went.

Aside: Alright so I looked this up because I thought maybe this was Pangea related but it turns out that Pangea - that big land mass that was a cluster of all our continents - actually drifted apart 200 million years ago, so I was off by... a lot of millions of years.

So how did these New World monkeys come over from the Old World? Well, they think either by a land bridge, ooorrrr by a big floating raft of vegetation that came over. Which I can't not think of a bunch of monkeys, on a big mat of palm fronds, just kicked back, cruising across the ocean, loving it. But I have a feeling it was much more accidental and it sucked way more than that. I'm sorry, monkeys.

Alie: Christian [ph.] wants to know... He's heard that sign language is total B.S. Do you have opinions on that?

Kate: [*jokingly*] In general, or pertaining to apes?!

Alie: To apes... [*laughing*] Just in general!

Kate: Because I would say, I'm pro sign language!

Alie: [*joking*] Sign language is a buncha horse crap! No, but... Koko, is she really signing?

Aside: Koko, by the way, is a western lowland gorilla. She was born in 1971 at the San Francisco Zoo. She was taught sign language by her keeper at a very early age, and her life has been the subject of a lot of controversy and plenty of documentaries.

Kate: Okay, that is a [*grandly*] big topic. I would say yes, because she can as far as I'm aware. Again, not a Koko expert, but as far as I'm aware she can form her own words and she

starts conversations, which is a big difference than if I just say, "do you want milk?" and you say "milk" and I say, "look, you can speak!" That's not a conversation. So as far as I know, yes.

However, not many places teach their apes sign language. Our institution for example, we want our chimpanzees to act as ambassadors of their wild counterparts. We want people to come to a zoo and be able to see what a wild chimpanzee should behave like. That's why we have a large exhibit with a large generation, and many cool individuals that are acting the way wild chimpanzees should. Sign language is not a part of that, so it's just a different philosophy.

But yes, in some cases that would be my thing, is that yes, she's actually signing.

Alie: I do love that story where she blamed ripping a sink out of the wall on a kitten. It's, like, my favorite story.

Kate: I mean, that's a whole other branch of what I do, and it's very interesting, but that's very... Research and finding out their capabilities, that's not studying the natural behavior of the species and so... I call my chimps 'chimp-chimps,' because all of our chimp-chimps were raised by chimps, and have always lived with chimps.

You can take a chimp, remove it from its mom within a couple of days, raise it as an entertainment chimp, put it in a show, put it on TV. That's not a chimp-chimp. A chimp does not know how to be a chimpanzee. It looks like a chimpanzee but it doesn't act like one. And so when they get too big to handle at around age eight or nine, and they realize they're far too dangerous to handle anymore, then an entertainment company has to decide what to do with it. Well, a lot of times they end up living alone, which is torture for such a social animal.

Luckily we have a lot of sanctuaries opening up now that can take chimpanzees with a lot of, what basically are, special needs and issues, and rehab them and get them in with other chimpanzees because they have a lot of time. Sanctuaries are wonderful places for animals that don't have any other options, but they're full of chimps that were denied the ability to be who they were supposed to be.

Alie: So do they turn into, like, diaper pariahs, like semi-hybrid human beings?

Kate: Yes. It's bad. Because they are a totally different culture. They're not chimp-chimps, they're just not. So you can have a zoo and you can have... let's say there's a lab chimp that doesn't have a home, you can't just put it into a group of chimp-chimps. They don't speak the same language. The chimp-chimps would be like, "I don't know what you are but you're not acting appropriately so we're just going to kill you." So, that doesn't work.

You could probably find that lab chimp a home with some other lab chimps that also might be kind of similar in some ways, but...

Alie: ...but yeah, introducing an entertainment chimp in suspenders and pants and he's like, "where's craft service?" That's not going to fly.

Kate: No, it is not.

Alie: Carlos [ph.] wants to know: Can a chimp raised in captivity use a toilet?

Kate: I believe some have.

Alie: Really?!

Kate: Again, that's not natural behavior. I mean, they're pretty food motivated, I imagine you could. Chimpanzees are not naturally latrine animals so they tend to just kind of go wherever. Which is why it takes me four hours to clean up!

Alie: That's interesting that they're not just like, "that's potty corner over there."

Kate: I would love it! Now, if we can't clean an area for several days, like we have some that won't leave for whatever reason, they recognize it gets gross and won't sit in certain areas, they're like, "eeewww!" But, you know, they don't have to clean it - I do!

Alie: John wants to know... this is John Purcell [ph.] - friend of yours, friend of mine. He asks: Why are chimps so mean and bonobos so loving? Is that an appropriate question?

Kate: [*mockingly*] No, John, it is not! Because chimpanzees, yes, can be violent and aggressive, they can also be extraordinarily loving. Bonobos are extraordinarily loving and can also be really nasty and aggressive. Chimpanzees overall are a little bit more so. That's just how they evolved.

They do have different societies as well. The bonobos are matriarchal societies. They have an alpha female, so the ladies run the roost there. And in chimpanzee society it's patriarchal so you have an alpha male running the roost.

Alie: Does the matriarchal structure lend itself well to just the... unending orgies that bonobos are known for?

Kate: I would say yes. Then again, they fight just like chimpanzees - not as frequently but they certainly do.

Alie: That seems more like a Burning Man situation, everyone just fluid as fuck, you know? [*both laugh*] Like, what is even happening?! I feel like people seem to put some kind of hope on bonobos, that humans can be...

Kate: Just like them.

Alie: Yeah. Can they afford to be, kind of, hypersexual because it's matriarchal?

Kate: Probably.

Alie: Okay, good to know! Lorenzo wants to know: Why do I still have back hair but tall, square jawed guys don't?

Kate: [*whispers*] Waxing! [*laughs*]

Alie: [*laughs*] Okay! Reggie wants to know: What's the smallest primate that can learn a language of sorts? Would you argue that primates have a language because they communicate?

Kate: Oh, absolutely. I'm not sure what kind of language he's talking about but... So, there's great apes which everyone's heard of – the gorillas, orangutans, bonobos and chimpanzees. There's also lesser apes called gibbons. They are more from Indonesia and the 'Far East,' if you will. They found that there can be all these different species of gibbons but when analyzing their vocalizations, there will be regional accents across species lines.

Alie: Stop it, you serious?! So some of them sound, like, Canadian or...?

Kate: Totally. Now, that is a whole other branch of science that I don't know about, syntax and vocalizations, but I read that study and it was super impressive.

Alie: Oh my god, regional dialects, that's blowing my mind!

Kate: Yeah chimpanzees even have, like, specific calls for snakes. So, the whole community knows that, like, "there's a snake, get away!" because snakes are kind of dangerous.

Alie: Is it shrill, like a small girl screaming?

Kate: [*thinking*] No, it's... it's like a bark? I've only heard it once. But it was like, "I think that's the snake bark," and it totally was. It was a tiny garter snake, 'cause they don't know. But if we hear them make that call we pull them off exhibit and find the snake, because it could be a rattlesnake in Southern California.

Alie: That's interesting that snake fears are so ingrained.

Kate: Ooh, do you want another fun story?

Alie: Yeah!

Kate: Another cocktail fact... There was a study done in wild chimpanzees where there was a path that the chimpanzees walked along really frequently, and it was really narrow so it had to be single file, and they put a fake dangerous snake right off the path. The chimps that had friends following them would bark to tell them the snake was there. The chimps that had chimps they weren't so close with, wouldn't tell them.

Alie: Whaaaaaaat?!

Kate: Mm-hmm. [affirmative] Sneaky.

Alie: That's some sabotage right there!

Kate: They're sneaky. We had a female who loves to start trouble. She just finds it fun - as far as we can tell - she just gets a kick out of it. And she was really, really pregnant so she couldn't do it anymore, and so she'd sit and wait for the lowest ranking female to walk by, and she'd shove her into one of the males and try to start a fight that way. And the female would just run away like, [*scared, confused voice*] "why did you... I didn't know... I didn't do it!" And then the pregnant one would just sit there and stare.

Alie: Drrrrrraaaaaammmmaaaaa!

Kate: [*laughs*] The girls, you know.

Alie: Do you sometimes just sit and watch?

Kate: Oh yeah, all the time. They're fascinating.

Aside: They have put cameras up to see what happens in the middle of the night.

Kate: We thought they went to sleep at like, 5:30 and woke up around 6:00 but they don't. They are up all night, and Ben always gets up around 4:00 in the morning, and runs around thumping his big ol' feet around, and waking everyone up, and they all start yelling at him.

Alie: [*amazed*] Oh my god!

Kate: It's not restful. So no wonder you see them sleeping during the day!

Alie: This is the best reality show ever! Now I wanna meet Ben, I wanna be like, "oh my gosh is that hiiiiimmm?"

Kate: Well you're stalking me anyway, so you might as well!

Alie: Yeah I know. I'm like, popping by the zoo, [*dorky voice*] "hey it's me, hey!"

Kathy [ph.] wants to know if you have thoughts on primates having a bona fide culture à la Frans de Waal? I don't know who Frans de Waal is?

Kate: Frans de Waal, he's a very big primate researcher. They absolutely have cultures, even if you're comparing, like, different wild chimpanzees in different countries, or different communities, will hunt differently or behave slightly differently.

Zoo groups will have their own cultures as well, just things they've learned within this zoo. So it's kind of interesting, like, you don't move chimpanzees a ton but if you do, one will move and teach things to a new community, which is kind of cool.

So they definitely have their own ways to do things. I mean, there's certain cultures in the wild that will make spears to stab bush babies in trees, but not every chimp can do that. That's something that was learned within that one community because they live with these small prosimians called bush babies.

Alie: I was gonna say, what the hell is a bush baby?!

Kate: It's like a mouse... monkey... with really big eyes. It's like something a five-year-old would draw.

Alie: [*adoring*] Oooooooh!

Kate: But they're super cool, and they live in trees, and they come out at night, I think.

Alie: Do they wanna eat them?

Kate: Yes, they do.

Alie: Raw?

Kate: Um, well, they don't cook... [*laughing*] they don't make fire!

Alie: [*playfully*] I don't know! Maybe they dry them out in the sun or something!

Kate: Oh no, they just rip 'em to pieces.

Alie: Oh god!

Aside: Okay, so when I first heard the term "bush babies" I couldn't not think of a family portrait of George W. Bush and his grandchildren, which was upsetting.

I looked it up, these things honestly do look like living cartoons. They're also called galagos or nagapies (which means 'little night monkey') and they're related to lemurs and lorises. So they have those huuuuuge hubcap eyes.

If you're having a bad day, Google image search them, immediately. They do not look real. In fact, in the Google images I came across a picture of a stuffed animal, and that stuffed animal by comparison sucked! It wasn't even half as cute as a real bush baby, galago, nagapie. Oh, they're so cute! I don't wanna think about them being in peril. Okay, back to tool use...

Kate: There's some chimp communities that will use tools to do termite fishing, and others that use different tools for ant fishing, and different communities that will use, like, anvils and small hand rocks to break nuts and things. They all do it slightly differently, which means it's learned within that community and is passed - again, they're peer learners - from generation to generation.

Alie: So they'll be like, "this is how you make a spear to kill a bush baby."

Kate: Yes.

Alie: ... and eat bush baby sashimi...

Kate: Yeah, there's a lot of studies going on right now where they will watch these cool resource sites, like a termite mound, or an ant mound, or whatever, and then watch them make the tools and then leave the tools so they can use them the next week. They have foresight to be like, "next week when I come back when the ants have been replenished, my tools are still here."

The mom will sometimes... It's usually the moms teaching little ones. They'll make an extra tool for them or just hand them their tool when they're done, so there's a lot of direct learning. I got to watch one of our moms directly teaching her kid to walk, which was super cool. She'd put her down, and she'd cry, and then she'd move four feet away, and then beckon to her and be like, "come on, you can do it, you can do it." I watched it for like an hour, it was amazing.

Alie: Did you get emotional?

Kate: I did.

Alie: Did you cry?

Kate: [*coyly*] Um, maaayyybe a little bit... a little tiny bit...

Alie: Oh my gooooooosshhhh!

Kate: It's beautiful.

Alie: Did everyone whip out their cameras like, "it's baby's first steps"?

Kate: Zookeepers' photos are hilarious. I mean, it's like, two thousand pictures of our animals. We love them, they're our passion, so...

Aside: Okay, topical warning. There will be some discussion about poop right now.

Alie: This question got asked multiple times, once by Ivan [ph.]. Why do monkeys fling their poo when they're agitated?

Kate: Ooookay! [*Alie laughs*] Well, one: not all monkeys do that. So, that is also a learned behavior. There are some communities that they all fling their poo, and some that they do not. They do not have the... I don't know what the word is... deterrence of fecal matter that we do. That is something that humans are like, "eww, that's disgusting, gross." Chimpanzees don't. And other primates don't have that. It's something that comes out, and "hey, that's interesting and it's there and..."

Aside: It gets a little bit grosser right now, for about ten, twenty seconds.

Kate: "...maybe if I ate something really yummy yesterday and it's in there, maybe I kinda wanna eat it again, to taste it again." So they don't think of it as gross.

Alie: Barf!

Kate: It just is. It is gross to us, and as a keeper I'm like, "no, don't do it! But again it's what you do, but it's really gross." And it's something to throw. We don't really have an issue in our zoo with it, but they'll throw rocks that they find, they throw pine cones, if we give them coconut shells they'll throw the coconut shells, and they do it when they're upset. Because again, they show when they are upset and if they can't reach somebody else they will throw something to make sure that they know. We have one male who loves to throw objects at one particular female, so he waits for her to walk below him and he'll nail her in the back with something.

Alie: Does he like her or hate her?

Kate: He does not love her very much. But they're on different sides, so even though we have one community we have two dueling groups whereas, like, the alpha male will come from each group and it's been going back and forth for years. So, she has aligned herself with the other political party than the one that's currently in power and he knows that. So, he just likes to get a rise out of her. And she screams a lot, so if you make her scream then it also makes you look super scary that you cause such a reaction.

Alie: That is so conniving, this is such a soap opera!

Kate: [*wryly*] It's *Game of Thrones*, really. [*laughs*]

Alie: [*laughs*] This is amazing! It must make you reflect on personality so much, why certain people have certain personalities.

Kate: Yep! Every chimpanzee, every primate is going to be incredibly different. You just have to watch long enough and you will see them come out, and they are not hidden. They don't hide anything.

Alie: What's your least favorite thing about your job, or the worst day on the job you've ever had?

Kate: That would be a tie between... we do have some medical things that pop up that are heartbreaking because they are our loves. They are our passions, and they're going to have medical issues just like we would, and it's difficult because they can't talk to us. So, it's trying to figure out what has happened, what's going on, what's the best thing to do in this case?

So, medical stuff is tough, especially the end of life stuff in a zoo because a lot of keepers have worked with their animals for ten plus years, and our job is to care for them until their end. That's the same thing as owning a pet and making those difficult decisions, but most people have one or two dogs and a couple of cats. When you have forty animals in your care that comes up more often and that's really hard.

So that stuff kinda sucks, but it's part of the job and you have to be super objective about it as well. And that's also hard when you have patrons not understanding, like "that animal looks really bad" and we're like, "well that animal has lived five years past his end of life, but he's still eating and he's happy and we're doing the best we can."

Alie: When do they look ratchet? Do they have like, an eye missing or something? When would a patron say like, *[laughing]* "that chimp looks terrible"?

Kate: I mean, some of the chimp wounds look pretty bad, I'm not gonna lie. They really do injure each other. But they heal at a rate... it's incredible. Again, they're not people. So people will see a wound on the chimpanzee and think, "oh my god what if my kid had that wound? Why are they not in the hospital in a sedated coma?!" And it's like, they will heal from that, like, without ever needing stitches, you gotta just trust what we're doing.

And so that's where there's a disconnect between people assuming that the zookeepers don't care and are just letting animals be. And it's like, what you don't know is that the animal that looks bad over there is currently undergoing chemo, because we're doing everything we can to make sure that he's comfortable. Or, this one is technically in hospice care right now, so yes, we know she's limping but we assure you she's getting vet checks every single day and we're monitoring things closely.

We like the people who will then say something and want to talk about it, because once we explain it they typically understand - it's just a lack of knowledge. So I always say, come hang out, talk to staff. We always have education people and docents up front. Talk to them, learn! I mean, that's a big reason why people go to zoos.

Alie: Were you surprised that Harambe became such a weird internet meme?

Aside: If you touched anything that had the internet, you might have been familiar with the Harambe meme. This is after a silverback gorilla was shot and killed at the Cincinnati Zoo after a toddler fell into his enclosure. This sparked a lot of debate and outrage, and then a bunch of really weird internet memes. If you want to go down that

hole, go to KnowYourMeme.com which does an excellent job of explaining the inside jokes on the internet that you don't get.

But back to the actual incident, how did Kate feel about having to see a primate killed to protect a human?

Kate: [*thoughtfully*] That's just tragic and sad all around. My short answer is, look, I see it as a zookeeper. I've seen it as someone who has worked with silverback gorillas, and as someone who has... at that time was a 3-year-old toddler. It's a tragic accident because I can see every single side, including the ones who like zoos and the ones who don't. It's a tragic accident. It happened, it's horrible, and in my opinion the zoo did 100% the right thing. There's nothing else you can do.

You can't go to a zoo knowing that the zoo takes human life as anything other than the top priority. You can't do that. It's something that they had to do. And I appreciate that people were concerned about the tranquilizer dart which again is just... on TV usually it's a character, like on Friends like, "I shoot you in the butt and then you fall down." It doesn't work like that.

I have been there when a silverback gorilla was tranquilized and it made him worse. It made him enraged and it took another half hour for him to go down. You cannot do that with a toddler, and even if he was trying to protect... which in the beginning, honestly, he just looked confused, he looked scared, his lips were pursed, were kind of puffed out a little bit which means, like, they're not sure but they're very, very upset. He could have killed that kid just by accident.

They had to do that, and it was super tragic, and I kept thinking about the keepers behind the door who knew that if they didn't get him he was dead, they knew that, and they did everything they could, and they couldn't do it. And so, that's just horrible. It's just tragic.

Alie: How much of your job is spent on safety guidelines?

Kate: Most. Patron safety is number one. When we talk about like, "okay, what if we have an animal escape?" The first thing is patron safety, what can we do to assure that no patrons get hurt? Second is animal safety, and our safety is in there too, but... we know what to do, but that's not my top concern like [*mockingly*] "I'm gonna lock myself in the building and pretend this goes away!" No! That is not what we're trained to do! So it's patron safety first.

Alie: Do you have a favorite day on the job? Is there a day that like, sparkles when you think about it? As cheesy as that is and I'm not gonna take it back.

Kate: [*laughs*] Like a unicorn day? Is that what you mean, can we really lay it out there?! [*Alie laughs*] A unicorn sparkly day?! Oh gosh, hmmm...

Aside: I will... regret asking this question. The answer will... forever haunt me.

Kate: You know, birth days are kind of awesome.

Aside: You're like, "What's the problem? Alie, why do you have a problem with birthdays?" I really, really one hundred percent thought she meant like a birthday party, and I immediately pictured a chimp in a hat tooting a party horn, with maybe a partially demolished Costco sheet cake nearby. That's not the kind of birthdays she meant. She meant birth, space, days.

Kate: Chimpanzees have an eight-month gestation period, and we monitor their pregnancies with ultrasound, so we're kind of with them, and we're doing the EPTs in the beginning, and are doing our little dances when we learn that they're pregnant.

Alie: They take a regular pee test?!

Kate: They do everything we do. It's weird. It's super exciting when you get the positive! So, the birth days are fun, sometimes it's at night but there have been a couple during the day, like they're in labor all day and you're there for the birth and that's really exciting. It's kind of gross too actually because... *[laughs]* so, unlike us...

Aside: Listen, this is about to get... it's not gonna get gross, it's about to get fucking revolting for about 45 seconds. So if you capital C can't, capital D deal - which trust me I understand - hit the fast forward button 45 seconds, I'm not judging you. But if you are down for a very brief trip down the Willy Wonka tunnel that is the miracle of life, gird your loins and dive head first into these great ape birth factoids:

Kate: So, as soon as the baby pops out and the placenta pops out, the close females will just eat the placenta.

Alie: Oh boy.

Kate: The mom would go pick up the baby and the other females just lap the rest of that stuff up. Which is great, they've cleaned for me, that's the one time they've cleaned for me!

Alie: *[nauseated groans]*

Kate: I know, it's pretty gross.

Alie: *[grossed out]* Why do they do that?

Kate: I don't know. It's probably very nutritious. You know it's very big now to do pills and things?

Alie: I know that but like...

Kate: They just eat it raw.

Alie: [*groans*] That's going to take me a while to stop thinking about. But it's still warm and everything?

Kate: Mm-hmm [*affirmative*]. It might even be quivering.

Aside: [*"It might even be quivering" repeated, with horror-movie style echoes to emphasize the impact of the phrase*]

Alie: [*queasy laugh*]

Aside: If you were listening closely you can hear that even her dog was shuddering in the background.

Kate: But birth days are great, because all of ours are planned, and we've been excited, and expecting them, and as long as everything goes well it's really exciting. And it is really nerve-wracking until you hear the baby nurse, and as soon as you hear the baby... I would say probably baby nursing is the greatest of the greatest days. "And we're good! Cool! Mom and baby are good. We're not going to have to intervene here." We don't want to have to do that.

Alie: You don't want to have to breast pump a chimp for several months? [*laughs*]

Kate: No! No, I don't! [*laughs*] I'll do it, it's my job. Not a normal part of my job. But we will go to any extreme length we have to, to keep our animals healthy and happy. I mean, that's our job. So we'll do it, but it's not always pleasant.

Alie: And so where can people find you? You're at the L.A. Zoo. So if anyone sees a cool-looking chick...

Kate: Like, super pretty...

Alie: [*Valley girl accent*] Super pretty girl just like, wind in her hair.

Kate: [*joking*] Always! I always look fresh as a daisy. The marks on my outfit are not poop at all, they're totally just, like, dirt.

I'm usually at the Chimpanzees of Mahale Mountains, and if a zookeeper is not around or accessible our education staff is excellent. They are spread out all over the zoo and most of them have knowledge about the animals all over the zoo. So, seek someone out if you've a question, or comment, or concern. Most of the time we have a very logical answer for things, and if we don't we can always get the information to you, for sure.

Alie: So as always find smart people, ask dumb questions.

Kate: [enthusiastically] Yes! We're normally pretty nice!

And as a footnote, if you are curious about how you could make an impact, or how you could contribute to great ape conservation, there are a couple of ways.

Number one, don't use companies that use great apes in their products or advertising, or animal shows. Don't pay to take a selfie with a chimpanzee, don't purchase a birthday card that involves a chimpanzee wearing sunglasses on it.

You can also learn about the situations that chimpanzees are facing in the wild by going to your local zoo, or you can like the Facebook pages for the [Jane Goodall Institute](#) or the [World Wildlife Fund](#).

Another thing you can do that I never even thought of: check for palm kernel oil in the ingredients of things you eat, things you use. It's in a ton of Halloween candy, for example, and by buying things that have palm kernel oil you are helping to contribute to the deforestation of habitats for orangutans. So, check that out.

Thank you guys so much for listening. If you wanna keep up to date or tell friends about this, you can use the handles on Twitter [@Ologies](#), and Instagram [@Ologies](#). I'm also on there as [@AlieWard](#).

Also if you feel like purchasing any Ologies merch, that now exists, which is a crazy, weird dream come true that anyone would want to buy a shirt about this. We now have a page, [OlogiesMerch.com](#).

And huge thank you to Shannon Feltus, who is [Urban Farm Foods](#) on Facebook – she's an awesome chef in Portland. And her sister Boni Dutch, who is an artist - she has an [Etsy page](#), do look her up - both of them, who are helping me with merch, they are being amazing, I can't even deal with it.

So anyway, those are the footnotes, please stay tuned, next episode... Paleontology.

[clip from Paleontology episode - Michael Habib: "In fact one of our specimens may be the largest dinosaur from North America." Alie: "That's huge! Literally!" Michael: "Yeah!"]

[Outro music]

Transcribed by B. Stewart Caswell

And by Kris Noble, that neighborhood guy who always seems to have a cromulent monkey and/or ape fact to hand.

And now, some links for additional reading/watching/wonder:

[Etymology of primate](#)

[When was um Pangea, um?](#)

[Leaky trio](#)

[AZA accreditation](#)

[Paper about competition in female chimpanzees](#)

[Harambe memes, wtf?](#)

[Do you recognize yourself in the mirror?](#)

[Koko's PBS documentary trailer](#)

[Bush baby plush toy that's not even good](#)

[Cute ass real bush babies tho](#)

[Bondo Mystery Aping ain't easy](#)

Great Ape conservation info:

[Jane Goodall Institute](#)

[World Wildlife Fund](#)

[Great Ape Conservation Fund](#)

[Cheyenne Mountain Zoo info on palm kernel oil](#)

Ologies music by Nick Thorburn

Mixing and final production by Jason Scardamalia

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