



Episode 9: One in a Million
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Jade Melton: ... when snails sometimes, they'll take no note of each other whatsoever. They'll just either slide on by each other, but it almost looks like they're kissing each other. They'll just touch each other with their eye stalks, and they just kind of have just a touch of each other.

Phoebe Judge: When a snail mates, it's called traumatic insemination. They stab each other with a spear about the size of a fingernail. It's sometimes called a love dart. If you scale it to the human body, it would be like a 15 inch knife that contains a fertility boosting hormone. Snails are hermaphrodites, so any snail can mate with any other snail. And of course, they move very, very slowly, so the process can take up to 12 hours.

Angus Davison: Yeah. So snail sex is interesting and bizarre.

Phoebe Judge: This is Angus Davison. He's an evolutionary geneticist at the University of Nottingham, and he says the love dart is not the only interesting thing about snail sex. He says to imagine the way snails reproduce as kind of like two cars driving towards each other.

Angus Davison: If you're in America, you're driving on the right-hand side. I always imagine some kind of seedy film where they're both drug dealers and they're exchanging some drugs.

One of them passes the drugs across, the other one passes some money across. That is — so they drive up, they approach each other from opposite directions, they wind down their windows, and pass these packages across. And of course, that only works if they're both driving cars where the steering wheel is on the left-hand side.

Phoebe Judge: If one of these cars is made differently, let's say it's a British car with the steering wheel on the right-hand side, they won't line up. The two cars will just pass each other by, unable to make contact.

Angus Davison: It just isn't going to work. They're not going to be able to reach far enough across.

Phoebe Judge: Which does happen when you're dealing with a very rare snail, a snail that is born different from almost all the others. Most snail shells coil clockwise, but this snail shell coils the other way. Angus Davison had been hoping for 20 years to get his hands on one of these left coiling snails. And finally, one Friday night, he got an email from a fellow scientist who'd spotted one in his garden.

Angus Davison: He said, kind of throwaway, "Would you be interested in this or shall I just put in the freezer at the museum?" And so immediately I was typing back furiously, "Please don't freeze this snail." So fortunately, I intervened in time and inevitably, so he sent me the snail by snail mail the next week and we received it at the university.

Phoebe Judge: Snail mail?

Angus Davison: Snail mail, I'm sorry, yeah. Had to be. There's a lot of terrible puns.

Phoebe Judge: When it arrived at his lab, Angus knew right away that he had one of these unusual left coiling snails.

Angus Davison: And the problem with that is these lefty snails, essentially, to be a little bit delicate, their genitals are on the opposite side from normal snails. So in a normal right coiling snail, the genitals are wholly to the right-hand side, and in a left coiling snail, they're on the left-hand side. That means that left coiling snail has trouble mating. So it's a hermaphrodite snail, but it can't mate with itself and needs to find another left coiling snail to mate with, and I need to find that snail to do the genetics. But of course, this snail is a one in a million. So how on Earth do I find another? I've never seen one in 20 years. Do I have to wait another 20 years to find another one?

Phoebe Judge: A left coiling snail is incredibly rare, more rare than a British car on an American road. It's sort of like when a human's heart is on the right side of their body, but even more rare than that.

Angus Davison: I don't know for certain, but if you're a snail and you coil one way or the other, I don't think you probably know which way you coil. So the left coiling snail doesn't know that it's one in a million, so it's just trying to mate as normal, and it can't recognize the way that all other snails are different. So it can't adjust its behavior because if it could, maybe it could mate.

Phoebe Judge: Angus wasn't going to just sit back and do nothing, not with such a rare snail. He decided to do what so many of us do these days when we're having a little trouble meeting a potential partner: he took the problem online.

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[Music.]

Angus Davison: I was anticipating we'd need all kinds of gimmicky headlines, "Lonely lefty seeks mate for love," kind of a lonely hearts kind of thing. And we didn't need it. It's amazing. We didn't need any of that. The thing that carried the story is just like, I don't know how to say it, the "aw" bit, the, "Aw, that's so cute, or so sad," or whatever. People could immediately empathize with a lonely snail that couldn't find a mate, and so that was it.

Phoebe Judge: Angus gave his snail a name, Jeremy, after Jeremy Corbyn, the left wing leader of the UK's Labour Party. He took some photos of Jeremy and put them online. All he needed was for someone, somewhere in the world, to find another left coiling snail, then they'd reproduce and Angus might be able to figure out what makes some snails coil left and some coil right.

The BBC picked up the story and explicitly asked the public for help finding a mate for Jeremy. They gave the search a hashtag, #SnailLove. That's how Angus Davison heard from a woman in Ipswich. Her name is Jade Melton, and she identified herself as a snail enthusiast.

What does that mean, a snail enthusiast?

Angus Davison: [Laughs.] Yeah, I know. So why should you ask that question? I mean, if I'd been talking about spotting birds... Or do you do that in the States? I mean, do people go out, if you're a bird enthusiast? You know what I mean. They've got binoculars.

Phoebe Judge: Yeah, I know what that means, but- [laughs].

Angus Davison: Yeah. Well, we call them bird spotters in Britain.

Phoebe Judge: Yeah, we have a ton of those, but there's something that seems a little different than being out in the wild looking for birds.

Angus Davison: Yeah. But it's only different because it's more unusual. We shouldn't just focus on these big things that fly around our garden sometimes. There's lots of other creatures there, which some of them might be smaller, but if you look at them under a microscope, they are equally interesting.

Phoebe Judge: Jade Melton wrote to Angus because she'd found her own unusual snail a few months before. She's a member of the Ipswich Conchological Society. They study snails and their shells. She'd been out snail hunting one day and saw a left coiling snail making its way down a plant. She put it in one of the tubs she keeps on hand, gave it a name, Lefty, and took it home to join the others.

Jade Melton: I currently have over 150, but at one point it was over 300. I keep them scattered all over the place, really. Most of them are upstairs and I have the nursery downstairs, which obviously, the baby snails.

Phoebe Judge: You put a couple of pieces of grass in the-

Jade Melton: I tend to feed mine lettuce. That Romaine lettuce seems to be their absolute favorite.

Phoebe Judge: Angus packed up Jeremy the snail and they took the train to Ipswich to see if the two left coiling snails might get along.

Jade Melton: Obviously, we introduced each other, said, "Hello," to each other. I had Lefty, he had Jeremy, and we took them in the garden and we put them down on the ground, and we just sort of let them say a snail hello to each other. We were happy at first, because they were showing signs of obviously taking an interest in each other. Angus took some nice pictures of the two of them. So it was really exciting. And I was thinking, "Well, I wonder if they would just seal the deal now and now," but obviously, I wasn't going to rush them as they are snails.

Phoebe Judge: And then, nothing. Angus went home to Nottingham. He kept calling Jade to check in, but there wasn't any news. The snails weren't mating. He suggested they move them from Jade's house to his lab where he could try to improve the conditions. She wasn't sure she was comfortable with that.

Jade Melton: It was a bit like one of my slimy babies is kind of going on holiday. But me being the mother hen type, I was anxious to know how Lefty was doing.

Phoebe Judge: The lab didn't make a difference. Jeremy and Lefty, two of the rarest snails on the planet, uniquely capable of mating with each other, just weren't doing it. It seemed hopeless. And then a third snail entered the picture.

[Music.]

Miguel Àngel Salom: I'm Miguel. I'm from a little Island in the Mediterranean Sea called Majorca, from Spain. And I'm 32 years old.

Phoebe Judge: Do you like snails?

Miguel Àngel Salom: Yes, I love them. [Laughs.]

Phoebe Judge: Miguel Àngel Salom farms snails, millions and millions of them, which he then serves in his restaurant.

How did you hear about Jeremy the snail?

Miguel Àngel Salom: Well, it was a friend who sent me a screenshot from Twitter about the story of Jeremy. So I found in my snail farm a left-handed snail, which I called Tomeu, a typical Majorca name.

Phoebe Judge: Had you ever found a left coiling snail before?

Miguel Àngel Salom: No. To be honest, I never found one. But it was something natural. Working, and I saw, and I realized, I said, "Wow, that one is a left-handed snail." I take it and I go to write an email to Dr. Angus. And at the beginning he was, "Are you right? Are you sure that it's a left-handed snail and it's the same variety I need?" I say, "Yeah, it's the same variety, so no worries, because I know both. I saw the picture of Jeremy and I know it's like *Helix aspersa*. It's the same that myself," and I sent him the snail afterwards.

Phoebe Judge: Now Angus had two potential mates for Jeremy. He put them together, two at a time.

Angus Davison: So I put Jeremy with Lefty again, nothing happened. I put Jeremy with Tomeu again, nothing happened.

[Music.]

Phoebe Judge: And that's when it became obvious: no one was interested in Jeremy.

Angus Davison: Lefty the snail mated with Tomeu the snail and poor old Jeremy got left out, literally, from the love triangle.

Jade Melton: Poor Jeremy. He got left in the dirt, really. Tomeu and Lefty, I guess they were blown over backward by each other, and they decided to have babies.

Angus Davison: Lefty ended up going with Tomeu, yeah.

Jade Melton: He just took a shine to his foreign lover, I guess.

Phoebe Judge: Tomeu and Lefty had 170 baby snails, and then they mated again and again. Jeremy isn't the first animal to be left out.

In 1971, researchers were surprised to find a species of tortoise they'd been certain was extinct. They named him George. They spent 40 years trying to find a partner for George to continue the species, even trying to mate him with other kinds of tortoises. He died alone at nearly 100 years old, the last of his kind. There's a name for animals like George: an ending.

In Panama, a fungus was killing off a rare species of frog. Researchers went into the forest to try to find and rescue all the frogs they could, but they only found one. They relocated him to the Atlanta Botanic Gardens, but he knew it wasn't home. He stopped calling for mates. He didn't even respond to recorded calls of female frogs. Maybe he knew they weren't real.

In 1992, a guy working in a lab on the Puget Sound heard a strange sound. It sounded like a whale song, but the frequency was way too high. It was a whale. For more than 20 years, researchers observed him calling out and never getting any response. They thought it was possible that other whales couldn't hear him at all.

Angus was in too deep to let that happen to Jeremy. He wasn't giving up. Some snails hibernate, and so Angus orchestrated a mini hibernation for Jeremy by putting him in the

refrigerator. Jeremy came out of the refrigerator looking a little better. And it wasn't long after that that Angus walked into the lab to find Jeremy mating with Tomeu.

Were you proud of Tomeu for being the most popular?

Miguel Àngel Salom: Sure, yeah. He probably is the most popular snail in Majorca, for sure, and probably in Spain as well, yeah.

Phoebe Judge: Tomeu produced eggs that hatched into 56 tiny snails.

Jade Melton: Yeah, when they hatch, you can't touch them. They're so delicate. They're transparent, so you can see their shell, a tiny little shell, and you can actually see their little heartbeats through the shell because they're transparent. It's very sweet.

Phoebe Judge: Angus and Jade are raising them. And it turned out that every single baby was born right coiling.

Angus Davison: All the baby snails were right-handed, so that one was a bit disappointing for me, because Dr. Angus as well was trying to find or trying to make science with baby left-handed snails. So, that didn't happen.

Phoebe Judge: The left coiling gene is recessive. It could take more than a generation to appear again. Jade and Angus will be waiting, Angus to study their genetic material. He hopes that what he learns will provide insight into body asymmetries in other species, including humans. For her part, Jade is more romantic. Even though it wasn't her snail who mated with Jeremy, she appreciates that, like so many of us, Jeremy just needed a little extra time.

Jade Melton: It shows that there is someone for everyone. Just, you have to find them, I guess. It kind of gives you a sense of hope, not just snails, but humans also.

[Music.]

Phoebe Judge: On October 20th, 2017, the BBC, who had followed every turn of Jeremy's story, reported that he had died. The piece read, "Jeremy, the lonely lefty snail, has died at his Nottingham home."

Jade Melton: I try not to be too sad, and I think he lives on with his children. I have Tomeu's baby of which Jeremy is the dad of. And because he looks so much like his dad, I called him Jeremy Jr. And I call him JJ for short.

Phoebe Judge: He looks like his dad?

Jade Melton: Yeah, he's the spitting image of his dad. His shell is the same color, markings. He looks just like him, which is really nice.

[Music.]

Phoebe Judge: This is Love is created by Lauren Spohrer and me. Nadia Wilson is our senior producer. Teresa Cotsirilos is our assistant producer. Audio mix by Johnny Vince Evans and Rob Byers.

Julienne Alexander makes original illustrations for each episode of This is Love. You can see them at thisislovepodcast.com, and you can also see pictures of Jeremy and Lefty and Tomeu and their babies.

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[Music.]

Jade Melton: More than half of my snails have names, other ones don't because I literally can't tell the difference between them. Yeah.

Phoebe Judge: Can you list some of the names?

Jade Melton: Yes. Currently, obviously I'm not going to name all of them because I'm not even sure if I could, to be honest... I've got Jeremy Jr., I have George, and Brian, Jeffrey. Just trying to think of others. Well, Loofah, Wycliffe, Tindale. I have Safi, which means 'pure' for Swahili. I have Sala.

Phoebe Judge: You know what name I like the most?

Jade Melton: What's that?

Phoebe Judge: Brian.

Jade Melton: Yes.

Phoebe Judge: [Laughs.] Mark would be a good — Jim, those would all be good snail names.

Jade Melton: Yeah. Jim's quite good.

[Music.]

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