

“Cat Tongues” Excerpt Transcript

Excerpt from [December 2, 2016](#) episode of Science Friday.

IRA FLATOW: This is Science Friday. I'm Ira Flatow. Amy Nordrum is an associate editor at the IEEE Spectrum. She's here in our community studios. Welcome back. Good to see you.

AMY NORDRUM: Thanks, Ira.

FLATOW: Cat got your tongue? This is interesting about cats.

NORDRUM: Absolutely. Cats are highly evolved creatures, if you think about it. I mean, their paw are suited to helping them creep around very quietly. They have this remarkable ability to twist themselves around in the air when they're falling and so that they can land on their feet.

And it turns out their tongues are also highly evolved to help them with grooming, which is something that they spend about 50% of their waking hours doing. So I talked with a Ph.D. candidate at the Georgia Institute of Technology, Alexis Noel, who's been looking into this matter of cat tongues and how they're so well adapted to grooming.

And she describes these spikes, keratin spikes, that are on the surface of their tongue. These spikes lay flat most of the time, but the cats have the ability to flex their tongue in such a way that they pop up when they start to groom. And the spikes are curved on the end, so that when they pull them through a tangle in their fur, they can actually pull out that tangle pretty effectively.

FLATOW: Sounds like Velcro, like their tongues are made out of one side of the Velcro pad.

NORDRUM: It is. It's really remarkable-- a very effective grooming technique. And there's 200 or 300 of these spikes on any cat's tongue, so it's pretty high density. And, you know, the strategy of laying them flat and keeping them out of the way for the rest of the time is a pretty clever one.

FLATOW: But it would also explain why cats get so many hairballs because they're so good. These spikes really pull the stuff.

NORDRUM: Right. I mean, that's the hazard of having basically a hairbrush on your tongue is there hairs that get stuck in their mouth. And the next step for Alexis will be-- she's trying to actually figure out what goes on in the cat's mouth when those spikes lay flat. She thinks that's when the hairs, you know, slide down the back of the cat's throat.

But it's tough to get inside the mouth of a cat. It's hard to put a video camera in there. So she's going to look into trying to use some x-ray technology to figure out what's going on inside of those cats' mouths.

FLATOW: They do have a mind of their own.

NORDRUM: They are notoriously difficult test subjects. It's really hard to get a cat to do what you want it to do.

FLATOW: Well, we'll stay tuned and see what happens. I guess you can't try this at home. Amy Nordrum, thank you.

NORDRUM: Thank you.

FLATOW: Amy is associate editor at The IEEE Spectrum right here in New York.