Tracey: [00:02](https://www.rev.com/transcript-editor/Edit?token=yI7lI-MhBD4fKbt2W-6Q-5nOvhaYKVhukawOgtt3qFx0-A3Y9BiVZi9JW-_Nm8Fant1sMoBpDeYWoBt00aGnc3a7IGk&loadFrom=DocumentDeeplink&ts=2.33) Hello and welcome to NC State's Audio Abstract, I'm your host Tracey Peake. We hear a lot about domestic cats and how their hunting affects local ecosystems, but where are they hunting? And how much damage do they do to prey populations compared to other natural predators? We're speaking today with Roland Kays, a zoologist at NC State and the North Carolina Museum of Natural Sciences to find out exactly what impact our pet cats have on their local wildlife. Welcome Roland.

Roland: [00:31](https://www.rev.com/transcript-editor/Edit?token=LkWEbZftuQAT0fhxvZR0c6JmuJtJKFXJx0OaSJpfiJ7GkwivgjbyfDl8vA66Mzfb85TIjjndkzNEcB09v3bc1TIkLg8&loadFrom=DocumentDeeplink&ts=31.17) Great. Thanks for having me here.

Tracey: [00:32](https://www.rev.com/transcript-editor/Edit?token=2sq0FBEjWmuKgO0e62CASy1vE2zC-OuMTpo0mqSaynqg1MX0CAEah22BMLFQvoVFXCJKNeqDH2qc8gHV5EVM8s-5xrE&loadFrom=DocumentDeeplink&ts=32.24) I'm glad that you are with us. First of all, what are we talking about numbers wise in terms of how much hunting domestic cats do and what wild populations are really most effected by their hunting?

Roland: [00:45](https://www.rev.com/transcript-editor/Edit?token=DmeJl7TuL8mRFzPD6ON_Hm8BLXKNGYJAGNu4wRZ8VEYTO7oBr72m4cOXGDQfycr_Vxe7IIghj9a2ES85Va6Ts4y5fhY&loadFrom=DocumentDeeplink&ts=45.02) Well this is kind of a big question because there's so many cats around the world and of course cats are really variable, right? Obviously you've got the inside cats, which we don't worry too much about because they're not really hunting anything, or maybe if you've got a house mouse or a cricket or in your house, they're going after that. We're talking about the outside cats especially... What we were concerned about is the inside, outside house cats, so the pet cats. There's also in some places in the world feral cats and we've sort of left them aside from this study. There are some other estimates... This question has been looked at before from looking at how many prey, for example, cats bring home and counting those up and doing some other estimates people have figured that in North America alone, cats are killing billions, 10 billion, maybe even higher, 30 billion small mammals and birds every year. There's reason to be concerned.

Tracey: [01:37](https://www.rev.com/transcript-editor/Edit?token=1tQL_i-Rb5QL7k-jHlctC8qMAjaekoI-0NDw0EUr8j1o9O7bnVSqpQ4wVIiOa56soc4HFpAapzcITaY5Zvd3k-xDHO0&loadFrom=DocumentDeeplink&ts=97.72) Right. And so for the purposes of the study that you've just completed, you focused on indoor, outdoor, what we would call a house cat, just sort of a cat that hangs out inside, and then we let him or her out to roam for a bit and then they come back in.

Roland: [01:51](https://www.rev.com/transcript-editor/Edit?token=qGbyVdginwXf7zbXY7v0ue9zbjjNDXRJcBzIOD1gpfdnotyYV7W3VfME-3Yu69cNChEV_Im3MyeCJzsd3UtAa8_CkCw&loadFrom=DocumentDeeplink&ts=111.87) That's right, because these cats are one that we have... And we have a good amount of information about what they bring home. And they were a big part of this estimate of the billions and billions of animals that were killed. But we were kind of left wondering, well so what? Does it actually have an impact? And to do this kind of research, these kinds of experiments typically have seen, oh, does species A effect species B, you have to do a some sort of manipulative experiment, right? Add something... Add cats to a place or take cats away from a place and see how the prey are going to respond. And we didn't really want to do that, so we were looking for an alternative strategy to try to find some way to compare what these cats were doing without doing this kind of manipulative experiment to get an idea of what effect they're having on their prey populations.

Tracey: [02:37](https://www.rev.com/transcript-editor/Edit?token=9KCfaEbQs-5a4nl15tWmsypMKMbpDHc2DN_e3YqxPxN-WoiqavZtXSYRAeL6CM0F7HBHlC4pVHjLc-BscEc93Xvdxg4&loadFrom=DocumentDeeplink&ts=157.84) How exactly do you do that without doing weird cat math where you're adding or subtracting cats or animals. How do you go about figuring out how much hunting a cat does per month?

Roland: [02:47](https://www.rev.com/transcript-editor/Edit?token=_EZBskFXoG4129JuZwl_ESjIM9Xpia2tCT2Kkohw45nY1ELa7gC_CxnVym-tIesXVjNcHBanJj0GX6BWGdPjO3uJL3g&loadFrom=DocumentDeeplink&ts=167.83) Well, so we realized that there was a key part that hadn't been worked into the kind of the equations in the work that people had been doing and that was the spatial part. We had this estimate that, okay, cats are killing lots of animals but we didn't know over what area is that happening. We launched a project, we call it Cat Tracker where we worked with pet owners to put a little GPS unit on their cat, on a little harness and let it do its thing for a week or so, and then they would send us a data back. We started doing this here in North Carolina, working with Rob Dunn at NC State and a number of NC State undergraduates kind of having this as an undergrad led project. And it was super popular, and before we knew it, we had people from around the world calling and wanting to join the project.

Roland: [03:33](https://www.rev.com/transcript-editor/Edit?token=3zMah3rdm0RxwpQ3v0F5bDKxsEARh0FZjJAZGBqjsroEFX9vThjTpw2YCACCQWfBxwmCvkt9ApjfYojsBi-q78K-CPw&loadFrom=DocumentDeeplink&ts=213.1) We ended up with collaborators in Australia and New Zealand and the United Kingdom working... Basically setting up their own project, we were sort of kind of joking that it was a franchise. There was Cat Tracker Australia and Cat Tracker New Zealand and Cat Tracker UK and they managed their own projects. These are really fun, cool citizen science projects where the scientists are working with the citizens, loaning out the cat equipment, the Cat Tracking's own GPS units, getting the information back. We all did it in a consistent way. We put all the data in a tracking database called Movebank. Now we have probably one of the biggest animal tracking studies in the world with 925 cats that we tracked across in total six countries.

Tracey: [04:14](https://www.rev.com/transcript-editor/Edit?token=mH9woZ0tWUeiwD7z_F4iNcBm6eXLRO4cF5tPUHDKC2XLAsiTE7VUgMKUHOlZjgTLXbZW922sLo4LAkIots33EKM2lE8&loadFrom=DocumentDeeplink&ts=254.76) So where were these cats going?

Roland: [04:16](https://www.rev.com/transcript-editor/Edit?token=bW9RSYsus5bUpz1-p4Pfo83dTxnHe0xBopUjq48WD32nBdGd06Q94pgkRQW09_Z-BhtbU8m_xe3Z1axaa5RQD6mHhxo&loadFrom=DocumentDeeplink&ts=256.97) Well that was the most surprising part about this study was how small of an area these cats were using. They really on average were not going very far, they were going 3.6 hectares was the average across everything. We only had three cats that moved more than a kilometer squared.

Tracey: [04:35](https://www.rev.com/transcript-editor/Edit?token=djqCDNQNfcgtslDNnkZNxxnQA8MhAA1n_5Nz6xNB7RPK1NSQ6MGce32Sf4r2BR2UIm5u893vcdJH0X9Q_fzzzh9fciQ&loadFrom=DocumentDeeplink&ts=275.51) Okay.

Roland: [04:36](https://www.rev.com/transcript-editor/Edit?token=ZQKTZPDxV_XI6YSMFEcrAZF0_hgdCHe3535LYT3j4I8tCb0jrRzw80G0PoGSuLTFidqLUMWy0v7GaiDn04-x-w7ZSO0&loadFrom=DocumentDeeplink&ts=276.6) Basically if you look at that on a map in a suburban area or urban area, they're hanging out most of the time in their yard and the surrounding yards and every once in a while going a little bit further but not very often. That was a lot less than I was expecting. I was expecting by the time we track 900 cats we're going to find quite a lot that go further. There were three animals, two New Zealand and one in the UK that went further than that. The one in the UK was kind of funny because you could see he walked down the road to the nearby town... He went between two different towns actually walking down the road back and forth, and so that one had a big range. But on average they moved over a pretty small area and smaller than I was expecting.

Tracey: [05:19](https://www.rev.com/transcript-editor/Edit?token=js5ySDU1hQmwYVBAfIbqXUqGPmcbBayZsxunWWhr1jCoFRxMltNGjIkyhTjx-lqK3gMCG6qoom1uOI-O6MlsGGVn9ek&loadFrom=DocumentDeeplink&ts=319.7) So now you have the data on where they're moving. How did you go about calculating what they were hunting or how much prey they were bringing down?

Roland: [05:28](https://www.rev.com/transcript-editor/Edit?token=k4T3Yc1iGzTVw89KSP1UFeQ7exCaqOvAap6UUW16ndZ_62AOgOaGt4n1T3IK0N5CtNIfbeClch5O8PD1imnhsKw_Se0&loadFrom=DocumentDeeplink&ts=328.25) Yeah. We worked with the citizen scientists to record that information, and what we found was a varied amount. Some cats are active hunters killing maybe 140 prey per year and other cats are hunting less killing maybe on the order of 50 prey per year. And like I said, there's a lot of other studies that had done this around the world and found similar values.

Tracey: [05:51](https://www.rev.com/transcript-editor/Edit?token=A3W5BMvTkLZt-OQ8EIRqFFZjbArtJpV6lx1gzq35hEkEUZnQl_tBVpHetP42ju7RHzKRuBw7Imq-zD97q2Hfk2HmYx8&loadFrom=DocumentDeeplink&ts=351.61) Okay.

Roland: [05:52](https://www.rev.com/transcript-editor/Edit?token=6-ETi76iSzDwXCL6Co26rSHHq7nLjhQmkz-VU-WPM3-yd8yu78RxQMVPHM5h_9oH5j8E_AB1nTJfeOacN13YlDMOgc4&loadFrom=DocumentDeeplink&ts=352.15) We think that that's a pretty good representation of what cats are killing and we can actually make an adjustment because we know not all cats bring everything home.

Tracey: [05:59](https://www.rev.com/transcript-editor/Edit?token=RG9chzRALGUV4HL-9GnZFCf8D9oW2LlcJOKb55SabviIuo0phknrgmxij-SMa9lD85ilhr0miK1tPEARzYK-7D1RtgI&loadFrom=DocumentDeeplink&ts=359.86) Right.

Roland: [06:00](https://www.rev.com/transcript-editor/Edit?token=isW6UCKsIC-9vCYcOsUuiL_wtsp-_IXvN8uWG4H7a-kSrM1bKV4vwuqwkWz9Va0oyMZg7l4cqSLRufCFojDXjHv4pTc&loadFrom=DocumentDeeplink&ts=360.18) So they're killing more that are... They're either eating or they're leaving out there in the field somewhere. Based on some other research and other studies, we sort of made an adjustment factor for that. And that allowed us to figure out how many cats per year... How many prey, sorry, per year a cat was killing. And then we could divide that by how much of an area they covered-

Tracey: [06:19](https://www.rev.com/transcript-editor/Edit?token=R7FHUibwLGNBPLAzCaaECDh-O2RDI8Ph3B40izMOsCjlsDnsmnCxK5HulH4skBNS0XkhDhcV8_sCqAMeAWY9oJ2HwXw&loadFrom=DocumentDeeplink&ts=379.23) Okay.

Roland: [06:19](https://www.rev.com/transcript-editor/Edit?token=uJAKVcaLLi6B-m44zhjsDIW84wcj04f_1cP3UlF5GcAk7GiuFbfGXf07MgpnzPtTW2pFqMM4no-JvJoXelFhLUsTXFI&loadFrom=DocumentDeeplink&ts=379.68) ... To get an estimate of how many prey per hectare, per area, per year each individual cat was killing. And the cool thing about this is when you start having this measurement per area per cat, now you can start to do comparisons with wild animals and say, okay-

Tracey: [06:33](https://www.rev.com/transcript-editor/Edit?token=nZT4pi9PdqYwfx4e06H4vvnj6U5uWFcziqWXjmNZ-JuwlmW4stMqtY4AzGdSGMgckuP0hVEyYvgkW0o68Do8Nd09hvE&loadFrom=DocumentDeeplink&ts=393.81) Right.

Roland: [06:33](https://www.rev.com/transcript-editor/Edit?token=2BaZuBc6ongiJGKUC1kZ0hCz0ACl7Z_ukgCKp7V-YkB6MUBjjhTlTGobEDc44Yh-cs6PTn7v3tXVGKpDaQYg4VQdHaM&loadFrom=DocumentDeeplink&ts=393.94) ... We know wild predators can regulate their prey populations and are playing important roles in ecosystems. We looked for the right candidate and there's some really nice research on an animal called the jungle cat, which is about the same size of the house cat, looks about like a house cat and lives in particular in India was where we found some research and there's some really good work that had looked at how much they eat per day and done some studies with them in the field. And they were able to figure out how many calories and how many prey, and then there was this brand new study by a colleague and his student that did some GPS tracking of the jungle cats.

Roland: [07:16](https://www.rev.com/transcript-editor/Edit?token=DFlSyuzlPsaF8XKg5H3fe26xexb2E_uexe_u0MfSO4sKRPJlGNGnmroQyKFmoJgRmMQbi5-B3G7LwaDDLThRoqHG-z4&loadFrom=DocumentDeeplink&ts=436.34) Now we had the same thing for them. We had how many prey they hunted per year over how much of an area, and now we could put this directly in comparison with our lazy pet cats and our active Hunter pet cat.

Tracey: [07:29](https://www.rev.com/transcript-editor/Edit?token=PrdIhifQfkkusptH91Nn0Fe0Kr9hoX-FvU7pVY2rpkQfctZBvh8DvzRnVH7TWGWHqgIvopid3RaGST2_qCQnWnXnpAo&loadFrom=DocumentDeeplink&ts=449.96) Comparatively, what are we talking about in terms of numbers?

Roland: [07:33](https://www.rev.com/transcript-editor/Edit?token=LwJLBkzMgV_CoWlB2BQPZBEdGw76TzrfpqJpNerT5PPpnE7maRbhdaAB_CURO0L7ScttyMgh0Tors4vOuad_9wmXELk&loadFrom=DocumentDeeplink&ts=453.63) Yeah, so we found that even the lazy cats were killing more prey per hectare, more prey per area than the jungle cats, a little bit more. The general cats, we had at about eight prey per hectare, per year. And the lazy cats were about 14 and the active cats were about 39 prey per hectare per year.

Tracey: [07:58](https://www.rev.com/transcript-editor/Edit?token=DecsD0kwTlS4beUL-vIUngXY3jbWkkkp8wj53_g1V_O4mC_q65gjSCgTI0ItZZV1zx0FTkmDhB6pfS2hAPdtz3eiY8c&loadFrom=DocumentDeeplink&ts=478.67) Wow.

Roland: [07:58](https://www.rev.com/transcript-editor/Edit?token=O4mmdc4glh-kt84Ecp-miIY32RHC7L-GdaLrdn_5NKZavIPig4PALBqwMFgkq7h_T9eYZSlww-yDeW5Lq297R9vcXQE&loadFrom=DocumentDeeplink&ts=478.86) The cats are... They're killing a lot less than the jungle cat, because they have a bowl full of food-

Tracey: [08:05](https://www.rev.com/transcript-editor/Edit?token=Mn1eVIed4i6WQjhCFagV-NHra2tUieVpdpzxzjSJfUv8Ag4H53dPdEmqHHvGnOmcvRS1Z1ci3pR7PwBnTUWG_SM5n7Y&loadFrom=DocumentDeeplink&ts=485.77) Right.

Roland: [08:06](https://www.rev.com/transcript-editor/Edit?token=UofX8FLJeJX5VdNBey-dWxDEWGiQq7oZC2p-xzeg0PpeW1gPXgcRVKXUouU5aeyPqbHS3tAPYZKG9LnjI8Syu6CjGko&loadFrom=DocumentDeeplink&ts=486.33) ... And they don't need to kill for their food, but they're hunting over such a smaller area that ends up getting amplified to be more per individual cat, per area. These cats are having a bigger impact on the prey population, but only in areas relatively close, say 100 meter radius from their own houses.

Tracey: [08:27](https://www.rev.com/transcript-editor/Edit?token=xdWtKF3EM6UDu3i9_rHgeypzgUwIZCL7hHIV1xklY_pUiqcBo94WP67Scj2m0O4v9UORFhHrzBf5lQJdqtmzC5Rr0o8&loadFrom=DocumentDeeplink&ts=507.66) Okay. It's more of like a cat concentration issue there?

Roland: [08:32](https://www.rev.com/transcript-editor/Edit?token=HEJ5svwbb70KV3Uc4nvJlZlG7irECy1n0RGZhsv0Ws1zb496ZVkTgUBJ7gizSRhi7hygolTlc7qy_LUWBBcGCIgqfnU&loadFrom=DocumentDeeplink&ts=512.69) Exactly. Exactly. And there's a second, there's one more factor that we looked at and that is, so our initial calculation was per cat-

Tracey: [08:38](https://www.rev.com/transcript-editor/Edit?token=JQ9OhISV0MneDlSFr4qNEi42pmiYs_DU14SMouOjBLSGUQ5QvLx3Yb85gIeiuTWAiou-7kd23ViY-kKPZO6Sw1u1Jxc&loadFrom=DocumentDeeplink&ts=518.72) Mm-hmm (affirmative).

Roland: [08:39](https://www.rev.com/transcript-editor/Edit?token=A9EiW001p6lq-c39tqECfU7sX652eB3fOajyXJTtSzFcMAYZhDVsNOhpm_74Hdd_MSQGBaq_ft3aCGRxsmQpub5E-kU&loadFrom=DocumentDeeplink&ts=519.36) ... But some of these areas where there's a lot of people, there's a lot of cats, right?

Tracey: [08:44](https://www.rev.com/transcript-editor/Edit?token=Ny7PynJRHFZZUG6epLNYuAI8N-w42UOVWIHZRsyWvXoJYQZVnednlbFRmQfJA_zECLH59ndfdHepTugblDSBMQM3LM0&loadFrom=DocumentDeeplink&ts=524.07) Right.

Roland: [08:44](https://www.rev.com/transcript-editor/Edit?token=T1rS-wYiacRl3c_AOA5AGWXt6jpwmppvZRvHapp5gk9dYcCf94hkntMM6KU5Jo7qB7JzHGHfdSRbJ6M3ZAUm_x0ysKk&loadFrom=DocumentDeeplink&ts=524.35) And so their density of cats, the number of individual cats is going to be... We figured... The two studies we could find on cats, they were twice as dense as what you would expect for the maximum density of a wild predator.

Tracey: [09:00](https://www.rev.com/transcript-editor/Edit?token=MdU6mBa5tWVt-vAmcsLlxhTpyEGL0-Pw2NgmfhwB3zIfGXei9WriXTWSJxsxBUPzN7MSP-nNBQlMTRMlbfkO6OOsq18&loadFrom=DocumentDeeplink&ts=540.24) Right.

Roland: [09:00](https://www.rev.com/transcript-editor/Edit?token=aTugEULFGyLQCngf1oiXrvDZq-MWNS1S8p_Ze442m6usguPPp7GFfZxUh8v1UmrJBhmE934w995kokGEGfgDpi7AmYQ&loadFrom=DocumentDeeplink&ts=540.27) So they're really... You work this all together then between the lazy cats and the active cats, we think they're having kind of conservative estimate two to 10 times the ecological impact of wild predators on the prey, but sort of concentrated in the areas near their houses.

Tracey: [10:12](https://www.rev.com/transcript-editor/Edit?token=HvmaioWmCEXuw8zRslbe6So8PDbG3OgIvaMYEfdgLKHZBofcxHuIii_A5NoE3lGU0Bik38Pk1w0J53oGl7hKYYHRT6s&loadFrom=DocumentDeeplink&ts=612.72) Now that we know your pet cat is out there impacting the ecosystem in negative ways, what's our best recommendation for pet owners?

Roland: [10:24](https://www.rev.com/transcript-editor/Edit?token=N4S_n_luVZNdkuCMRBG10o4HKctPyRAnuz7cqJm4VzAfFTmHCf1g5KNh9rtmeTtXhT3Ul67iUzPDLwbAkTaF43W5AZA&loadFrom=DocumentDeeplink&ts=624.32) Well yeah, it's really to keep your cats indoors. We find that there's a lot of other lines of evidence for this as well and a lot of other reasons for this as well. You've got safety concerns for cats outdoors in particular in this area, in North Carolina, there's a lot of coyotes and we have done some other work and we found that actually you find very few cats where there's a lot of coyotes. And the coyotes seem to be on the increase just this year we were running camera traps in a forest nearby in Duke Forest, and we got this picture of a coyote with a cat, a dead cat in his mouth right on the camera, and it's like this is happening out there. It is risky and it's not necessarily good for your cat and it certainly isn't good for the wildlife that's around there.

Tracey: [11:12](https://www.rev.com/transcript-editor/Edit?token=JBi1w2JKy_-V4pG0Oks0rWQ0LZqlInTVnCqiKogCdevurEWVmY8Iz87kdB9E_xHdDdQC2V4EyICcE0GBDt9poRrsKT4&loadFrom=DocumentDeeplink&ts=672.48) Right. Well yeah, I live out in the County and I can hear them, I can hear the coyotes at night. Our cats are indoor cats.

Roland: [11:19](https://www.rev.com/transcript-editor/Edit?token=HRrrXbwljNYRgRLIb2uYSKBxfe6xUk1jhd2Im9J8kyjP_lKJA3ZyQCaJQOPkKEXAO_QsY7AAP9MgmEzULiUfRJ8i7uo&loadFrom=DocumentDeeplink&ts=679.68) Oh yeah. Good.

Tracey: [11:21](https://www.rev.com/transcript-editor/Edit?token=F1hFQyxeSdZQHaTutGz9BiPJOenPqVv_-9AZ5WrMERxu2d1YUSANH1umcx-RBExvI_SoczUK7wJJpCsgWC_MpiN99xE&loadFrom=DocumentDeeplink&ts=681.23) Not taking any chances with that.

Roland: [11:23](https://www.rev.com/transcript-editor/Edit?token=THeVqae-RChztS2lQNfvjJ55FPesowpq89OmIeN0oCg5fzIQ7YndaE3holExjdx3rcz_-d8tudsop3VHE5NyOXOuqYw&loadFrom=DocumentDeeplink&ts=683.04) The other thing to keep in mind is where in the world this could be the biggest problem. Here in Raleigh for example, we don't have a lot of super endangered species that are living near people. Not that it's not... Still some species that are declining, but it's where you find the areas where you have housing developments and endangered small mammals or birds living right in close concentration. Some places that come to mind are along the beaches where you have shorebirds, a number of them are facing a lot of trouble and bunch of cats going out to people's houses and walking the beach would be really problematic. There's some examples from our colleagues in New Zealand and Australia where there's a lot of endangered animals living right near people's, a lot of small Marsupial's that are endemic and live only in that part of Australia. And there are cats nearby.

Roland: [12:13](https://www.rev.com/transcript-editor/Edit?token=PuXCWmzQCy2qJ4GQvpZPjHTiICjm7bUCWJkUNHSXqXzU0qKzuLUbR4TmNrq-yqAau61oh1sGmZO_UqQuxdeITF4PItE&loadFrom=DocumentDeeplink&ts=733.83) There's a number of situations where it could be even worse. You say, "Okay, well they're only moving... They're only killing stuff within a couple of hundred meters of their houses." Well sometimes that really matters.

Tracey: [12:25](https://www.rev.com/transcript-editor/Edit?token=GjYWytxL6erCkjZLM8TGDIoKIYotTeYCy7V2um7Bon59sZSWThmGWw58Sep_HmYUshi1VZiELFNSFnLin4bpZ_TsUas&loadFrom=DocumentDeeplink&ts=745.65) Right. If you're right where those endangered birds are nesting, your house happens to be next door adjacent, that's a bad, bad idea.

Roland: [12:33](https://www.rev.com/transcript-editor/Edit?token=2vvW7a8syzDlnBfAW-_WO8RRzZX5n-mNFOyOjBvAytI8VQ3MKZvq-3q5d5BTGL_7M1gG_CNOKB6zPGEq_PCmDe_pU84&loadFrom=DocumentDeeplink&ts=753.22) Right, exactly.

Tracey: [12:34](https://www.rev.com/transcript-editor/Edit?token=Jx3-3XMaeM-nKd5m5sPGMRdJG_plv_Cbi-6aTtVXOOPVbufsqK85ta4-Zk7JjaxJNQrHIVqjPPKl0Cs6wvg2KJOoybQ&loadFrom=DocumentDeeplink&ts=754.03) What was the most surprising finding from this study for you?

Roland: [12:37](https://www.rev.com/transcript-editor/Edit?token=CzzaU41ymnVTcmIgQ8gV0qn-IVoOrzLtY4uzzD-YtEynWZbd_TozlinUdpH1gI6ZYv5-xMA1A25swt3AHkP4iWqkkWQ&loadFrom=DocumentDeeplink&ts=757.79) Yeah, so for me the most surprising finding was how consistently small these home ranges were. That we measured so many animals and they were just coming back consistently, consistently to be these tiny little home ranges that these cats really don't... Most of them were neutered and all of them got food at home and so they don't really need a lot of space to roam around and they weren't using it.

Tracey: [13:02](https://www.rev.com/transcript-editor/Edit?token=2Jifj9-cRyX1tWAN-n4Ag5CSbkA7JF5hgmBjcybKvdN1wNOYQtiaHtgPj13MHgj7B_R4eLF9dzvTdoGgDA-R0IJss5E&loadFrom=DocumentDeeplink&ts=782.26) Yeah. Except for that one guy who might be a cat bigamist.

Roland: [13:04](https://www.rev.com/transcript-editor/Edit?token=FdGAdcTRBZIzWIC-5yjQqGuzD8HV8YhDmyNEtsCSCInL3XtnqM69jenF74e1v8qYj4wNHRBcRSMp_dVxcKldDTs3BLc&loadFrom=DocumentDeeplink&ts=784.32) Yeah.

Tracey: [13:05](https://www.rev.com/transcript-editor/Edit?token=RO3ueVQlL1on9w2x51-tqXUwp0yaINxi0bECbxKZxsdD8WFWt_Ht35OWvCNkBRunZfYSPH3WNAVkf5_Mox4gEV_njN8&loadFrom=DocumentDeeplink&ts=785.06) I wonder if he had another family in the other town and he was just going back and forth.

Roland: [13:07](https://www.rev.com/transcript-editor/Edit?token=ym7aZhExQhakYtThs8de9UxJayNj81Vc9C7Te3Rz7LkBGdGcjFq4k41Bo69Bt1kH01-acIvFoO-Sjg1fvTGToyeGQ3s&loadFrom=DocumentDeeplink&ts=787.34) Well, there was some of that. And we did see... You could see in the GPS tracking data some... You could see where cats would go to other houses and probably getting some extra snacks there.

Tracey: [13:16](https://www.rev.com/transcript-editor/Edit?token=kpB3_qZsJQKhX0rEGcvHPgM9dw2LY5Y7stDemg-HFaszo2e28HvNPVZDYoE2GJY7UocsL-7K5IMDqwvQ0gA2-ni-d_o&loadFrom=DocumentDeeplink&ts=796.9) Oh, I'm sure. I'm sure.

Tracey: [13:22](https://www.rev.com/transcript-editor/Edit?token=U39XcfmDI7CFDILzm2xVYBq7kkOQ4l60fFDbVE9iNtPc96X14fTklE-K3BLHKiu51BvJad04yB8MtrOnop2_QqAHTuE&loadFrom=DocumentDeeplink&ts=802.71) I am interested in one other related question, you said you did not include feral cats in the study, but we could extrapolate based on feral cat populations that the impacts going to be even worse in areas where feral cats are? I mean, is that unreasonable to think?

Roland: [13:45](https://www.rev.com/transcript-editor/Edit?token=D5lrRsnO_VXVnAchJ-1oEAuoePrpHX5YWiw3YVIviNYzeTonfo1Koh_MqB445tku_-GhdDHE5xFs8VPJVpsr4EpEUrk&loadFrom=DocumentDeeplink&ts=825.09) So cats live in a lot of different situations and you know how feral is feral is going to make a difference, right? There's a lot of these places where you had these cat colonies where people are putting food out and you can have massive, massive amounts of cats that are living there that are eating the food. But then also certainly killing the local prey nearby, how far they're moving, how much prey they're killing, we really don't know. Then you go in other situations where you might have truly feral cats and I don't think we have those in North Carolina because of the coyotes. You go in a state park, there's not... There's not a population of feral cats just roaming around out there.

Tracey: [14:23](https://www.rev.com/transcript-editor/Edit?token=g-R9EZV149cB9t9xLbG7xC46IHLo3-3FkmhQILXGhp-g4dIsr3yOpsDG2U5Bl198vYEWZW4PYss-ffo_OeFOQXou1U8&loadFrom=DocumentDeeplink&ts=863.51) Right.

Roland: [14:23](https://www.rev.com/transcript-editor/Edit?token=oxDD4294xnip2o0yDc_zkxMdPNm5Bx1LQ_3nJFhBq7PE1OkA9buLqJG1XPldalBnv6U_ozuUJ600XiSajNp295STKCA&loadFrom=DocumentDeeplink&ts=863.74) Sometimes you get this really concentrated colony where someone's feeding them, but otherwise not so much. But other places like Australia and New Zealand where there aren't any other larger predators like coyotes, the cats really are a big problem. I think that's still a bit of an open question about-

Tracey: [14:40](https://www.rev.com/transcript-editor/Edit?token=UE4Kzwke7z1KUPthXDFSiCfh7nHb2L4MykH-lTusUA64Cb4uc4rEmROZ9ZO5IAd2bNrR-5PW3_wLj4gGIldJJd2mEqw&loadFrom=DocumentDeeplink&ts=880.45) Okay.

Roland: [14:40](https://www.rev.com/transcript-editor/Edit?token=Ic41-1A3Xgg7T1pzqR2po5EJVAwc9l0bOh1hDp7Jm-MQ8hxp1tIRvWW4msfOuskh7DfUkq7TVBv4bFlZvBlyQJtKuRc&loadFrom=DocumentDeeplink&ts=880.52) ... And it's going to be more specific to the exact location of where those feral cats are living.

Tracey: [14:46](https://www.rev.com/transcript-editor/Edit?token=hsW4s8o205YWCqpkFfl1OeYZ1wsZC1zjCjGUEO3FKyrzhJwWEs7lULWsM3zxEEradS-BytEJyVth36OC2uIFM8q0-pA&loadFrom=DocumentDeeplink&ts=886.22) Well thank you so much for being here today, Roland.

Roland: [14:48](https://www.rev.com/transcript-editor/Edit?token=3rfz0FihH4qkzRICIrZzsy1Nbcf6JPNZ_tdfZ-neTU7vN5GjkoLIdfTTJC8Yn_aUcxi4436RcZuroSCIyy41YuVk88g&loadFrom=DocumentDeeplink&ts=888.8) Sure, thanks for having me.

Tracey: [14:49](https://www.rev.com/transcript-editor/Edit?token=0qtYuG9Zsg-d3mm0hGDAKXdYjpEZAbd1Y3AnDD53G7TWxH_eLTTRsQgNx-yMNaUip4lxPvD4hxHamhf6hhlgEeB24uQ&loadFrom=DocumentDeeplink&ts=889.6) It's been great. And I'm definitely keeping my cats inside where they can wreak havoc on the local insect population.

Roland: [14:54](https://www.rev.com/transcript-editor/Edit?token=vysq6E9b1CN3KtPK_ctr1FcvqosYPpROhO447l4lU3X3flDzBAnv3_PKJbbOL06_CJUo2aDTrWCh_MQd2kBw17izj1U&loadFrom=DocumentDeeplink&ts=894.67) Great.

Tracey: [14:56](https://www.rev.com/transcript-editor/Edit?token=BtRcIYEO4dBxlls9oM4fHBPZ_goNZcS1UQ_hinveMtZbYZZVHr0wtc_u54rebJKlmoe5HaNc5At3hVLG2fFl-2cJ1OE&loadFrom=DocumentDeeplink&ts=896.99) We've been speaking today with Roland Kays, a zoologist at NC State and at the North Carolina Museum of Natural Sciences. You can also catch Roland on his own podcast, in titled Wild Animals, which is available wherever podcasts are found. This has been Audio Abstract, I'm your host, Tracey Peake. Thank you so much for listening.