

Science Short Interview – Dr Tiggy Grillo on Bird Flu

Welcome to Squiz Kids Science shorts. We've got something a little bit different for you today, because we've been hearing quite a bit in the news lately about bird flu. And as with all big and emotional topics, there can be some myths and misinformation flying around about it. So this week I spoke with Doctor Tiggy Grillo. She's been working hard with the team monitoring bird flu and getting Australia's response plan ready. I learned a lot in this conversation, and I hope you do too.

Tiggy, can you tell us who you are and what your job is?

Yeah. So I'm, um, Tiggy Grillo, I'm the chief operating officer and also the national coordinator at Wildlife Health Australia. And for this interview, I'll let you know that I'm part of the wildlife expert advisory group that's set up as part of the response. So yeah, we provide input into that and we, or we work on wildlife health nationally, advancing that for the health of everybody.

Wow. That is a massive job. Can you start by telling us a little bit about the basics? What is bird flu? How is it different from the flu that humans might get every winter?

Yeah, absolutely. Look, the bird flu that we're talking about today. So H5 bird flu we're calling it, is a virus that mostly infects birds. Um, the flu that humans catch in the winter is very, very different. It's a totally different type of virus. Most of the bird flu viruses, stay in birds, and don't spread easily to people. So what we're talking about today is that h5 bird flu and scientists have been preparing for its arrival for some time.

Right. And so that h5, h5n1, we keep hearing about what are the letters and numbers actually mean?

Look, it's just like, I think you maybe remember during Covid, we had lots of different strains and variants, you know, um, similar. So bird flu viruses or avian influenza viruses have lots of different names. And the H and the N describe different parts of the virus. And the numbers help the scientists know exactly what version of the virus we're talking about.

Oh that's super interesting. And we've been hearing so much about this particular type of virus or type of bird flu. Why has it been causing so much concern around the world?

Look, this particular strain, so this h5n1 and it has a very complex name that makes it even more specific. But that particular virus has spread further around the world than many of the other bird flu viruses that we have seen over the over time. So that's why we're really worried about this in this particular type of bird, flu can affect many different types of birds more than again ever has been seen before. And even some mammals and millions of wild animals have died overseas because of it. So that's why we're so concerned.

Yeah. Right. And we know that it reached Australia back in June. How did it get here? How did it reach us?

Look, scientists suspect that it likely came with these migratory wild birds. So we heard very early on we had a brown skewer and a giant petrel, and they do their travels around the Southern Ocean. And birds migrate and move many huge distances sometimes across

oceans as these species do. And so the first detections in Australia were most likely due to these migratory birds in Western Australia. And they had travelled from areas where the virus was already at

Okay. An Tiggy, today, the day we're recording this, is Thursday, August six. What do we currently know about how far it's spread or where it is in Australia at the moment.

Yeah. So currently we know we have had detections of this in birds in Western Australia, South Australia, Victoria, New South Wales. And we've had also a case in Queensland. And we've had it predominantly in those um southern migratory species um that we call giant petrels and that one single brown skewer. And then we've also unfortunately been seeing quite a number of cases in greater crested terns, specifically in South Australia and Victoria.

They're the ones with the awesome spiky haircut. Is that right?

They've got a very cool spiky haircut. So yeah, certainly highlighting, I think this event is certainly highlighting how, amazed people are with nature and how important nature is to so many people because they've really come out and doing the right thing by avoiding and recording and reporting. Um, if they see any signs of sickness or death in wildlife. So that's great.

That's really good. And you said before that we we've known it was coming and that we've been preparing. What have scientists and governments been doing to prepare for this occasion?

Yeah. So we knew based on seeing what was happening overseas, that it was really important to prepare. So we've been preparing for over two years. And that has included monitoring, you know, making sure that we have good monitoring programs to detect the virus early, but also monitor what's happening overseas. We've been speaking to overseas experts to give us information about how to prepare here. But we've also developed response plans. So that means we have clear plans that are structured that know what we do on day one, two, three, four, five. And that includes looking at particular species and also sites that we know that might be of concern that might be particularly at risk and ensuring that we've got a good plan in place to know what to do. So as an example, um, in Seal Bay on Kangaroo Island. We know that there's sea lions there, and there have been some detections there. So they've already implemented their plan, which is to reduce some tourism activities there. And that's really just to try and ensure that their reduced impacts on on Australian sea lions. So they, if, uh, if anything more happens in that location, they can resist the virus better.

Oh that's great. And so bird flu obviously spreads from one bird to another. But how does that actually happen? And what happens if a bird becomes infected? What might we what might we notice.

So the bird flu can spread easily from infected animals to other non-infected animals, either through droppings or their poos, body fluids. So, so for example, like a sneeze, um, if you sort of compare it to a human with a cold and sneezing that can transmit the virus, but also feathers. And they're particularly animals, that are in close contact with each other is when you're going to get that infection happening. So you have to have a non-infected animal

very close to a sick animal or a contaminated environment. Some animals we know with this virus can become infected if they eat an infected animal. So those animals that are predators or scavengers, can also get infected. And when they're infected, birds may seem weak or sleepy or confused. They might have trouble walking or flying or breathing. But some birds can die suddenly. So the first sign might be that they're dead.

Oh, wow.

Unfortunately.

You mentioned sea lions so other animals can catch it as well. Are there any particular Australian animals that might be particularly vulnerable?

Yeah. Look, we're looking at those in terms of birds, there's a wide range of species that we know could potentially be infected based on our understanding of birds that were infected overseas. So similar sort of types of birds here. But also those mammals and the predominant mammals we're worried about are the ones that predate or scavenge. But also those that live in close proximity, you know, sort of sharing the same environments as the birds that might be infected. So that's why marine mammals, particularly fur seals or sea lions, when they're in the same environments as those coastal birds that might get infected. And you can imagine there are a lot of birds infected. There's a lot of virus about, so yeah, that's, that's where we're really worried about those species that are in contact with those environments.

Understand. And, and what about people? Can people catch h5 bird flu? Should should Australian families be worried?

Look, bird flu usually infects birds. And again, just to reiterate, the viruses are very different to the ones that cause seasonal flu in people. And bird flu can rarely spread to people, but it's quite rare. And currently the risk to people is considered low. And that's based on recommendation from the Australian Centre for Disease Control and Department of Health. So the best advice really is to simply not to touch sick or dead birds. Um, so that that's the sort of main advice here for members of the public or kids. But to reiterate, it's still safe to eat properly handled and cooked chicken and eggs. Um, so yeah, so that's, um, definitely something you can keep doing. Yeah.

That's excellent. And lots of our listeners might have pets, cats or dogs or their own birds or backyard chickens. Is there anything that families can do to help keep their pets safe?

Yeah, absolutely. So keeping your pet safe is also going to protect wildlife as well. So that would be things like ensuring you keep your dogs on a leash. Um, especially if you're out near wild birds. So, you know, dogs not chasing after a wild birds, they might be dealing with, you know, being a bit sick and, you know, dogs not chasing after them. Um, the same for keeping cats indoors is a good idea. And then you can prevent wild birds from, for example, accessing your pet's food or water, or ensuring that dogs and cats don't investigate dead birds when they find them outside. Um, yeah, so that's sort of the main thing. Um, but also obviously good hygiene is always really good. So washing your hands after handling handling your pets, or if you've got backyard chickens, making sure you wash your hands before you touch them and before you do anything else after you've handled them.

Yeah, that's awesome advice. Handwashing is fantastic.

Handwashing is so good. And we learned that right during Covid. You know, good, good soap and water does a bunch of great stuff and it can stop you from getting all sorts of different bugs. So yeah, it's a thing that we should all think about every day.

Amazing. And so if one of our, one of our listeners spots a bird that's behaving strangely or seems a bit confused or even a dead bird, um, what should they do and what should they not do?

Yeah. Look, so the main advice is to not touch the bird. Um, and don't try and rescue it. Don't try and take it home. So that's the main message. Don't touch it. Um I understand your audience is, is a younger audience. So I would suggest that they tell a parent or a teacher or a trusted adult straight away, and then they can help report it to the relevant animal health reporting channels. And so in Australia, we have a hotline called the Emergency Animal Disease Hotline that you can call from anywhere in Australia, and it connects you to the right government agency and the state where you are. Um, and that will give them an understanding of what you've seen. And then they'll make an assessment as to whether or not they need to investigate.

Finally, is do you think there's a single most useful thing that kids and families can do to protect their own animals and Australia's birds and, and wildlife?

Look, one of the things that is really beneficial is if you're a keen bird watcher, there are options just to monitor and record healthy birds that you're seeing out and about. So that really helps understand our baseline understanding of what those populations. Um, how they're doing. Um, and so if you're an enthusiastic bird watcher or a wildlife watcher, there are lots of places that you can record that either through Bird Life Australia or Atlas of Living Australia. And so just recording wildlife out in there on your everyday walks and out in the environment, it's great because that's underpinning data that will help us understand how populations are responding to threats like bird flu.

That's wonderful. And we'll put a link to the hotline. The hotline number in the episode notes as well, so that kids can, um, and, and their parents can keep you informed. Fabulous. Doctor. Tiggy Grillo, thank you so much for your time.

No worries.

I know I feel much more prepared and informed after our chat. And thank you for all your hard work on this too. I was hoping that you might be able to help me with the Squiz kids. Sign off today.

Now get out there and have an excellent day!

Over and out.