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Since 2013, NUS researcher David Tan has been appealing on social media for people to call him whenever a dead bird is spotted. The carcasses provide valuable genetic information for researchers. PHOTO: DIOS VINCOY JR FOR THE STRAITS TIMES

ScienceFaces

Meet Singapore's own 'bird man'

Bird lover and NUS researcher David Tan has turned his hobby into a career

Audrey Tan

For "bird man" David Tan, 26, birdsong is more than just background noise, it's a language.

"When you start paying attention, you realise that there is more to their calls than just noise," says the researcher from the Evolutionary Biology Laboratory at the National University of Singapore (NUS).

"When a bird is showing aggression, trying to attract a mate, or communicating with another bird, the calls are all different."

For instance, the Javan mynah – a small black bird with a yellow beak commonly seen around Singapore – makes a "hwee-hwee" sound when alarmed. Juveniles begging for food, however, produce a distinctive series of chirps.

Speaking to The Straits Times during a stroll at the NUS campus, Mr Tan stops in his tracks to listen to a bird call. Whipping out a pair of binoculars, he points out birds such as the drongo – a black bird with a tail that resembles a mermaid's, one of the more vocal species known to mimic the alarm calls of long-tailed macaques, which they follow around the forest.

Mr Tan is one of the lucky few who has managed to turn a hobby into a job.

His interest in birds took flight when he was an 11-year-old pupil at Tao Nan School. He and a classmate chanced upon what they thought was a streaked weaver building a nest in a tree in the school compound.

"Birds are pretty, birds are colourful, and there are so many things to observe about their behaviour," he said. "What really interested me about birds is the fact that they are ubiquitous – they are everywhere, but a lot of us don't realise that."

Through student life in Dunman High School and, later, Temasek Junior College, he went birdwatching on weekends with his father's army-issue binoculars.

He decided to take his passion one step further when he matriculated into NUS in 2010, enrolling in the department of biological sciences with a specialisation in environmental biology.

"I came to university expecting to study molecular biology, which was a topic that reigned supreme when I was in secondary school and junior college," he said.

"But when I realised that I could major in environmental biology and study birds, I decided to do so... Many people thought I was crazy for studying something without a clear career path."

He did research on the population genetics of striped tit-babblers for his honours thesis under Assistant Professor Frank Rheindt from the Avian Evolution Lab, and graduated last December.

The striped tit-babbler is a small bird native to Singapore. It has a yellow breast with black streaks and a reddish-brown crown. Mr Tan had originally wanted to study the straw-headed bulbul, which is globally endangered, but its preference for nesting in tree canopies made it difficult to study. The babbler, however, was a good alternative as it was also a forest dweller, but one that occupies the lower regions of the canopy.

Since 2013, he has also been appealing on social media for people to call him whenever a dead bird is spotted. The carcasses provide valuable genetic information, which enables researchers to study bird evolution, conservation and disease, among others.

"Since many of these birds are close to impossible to sample for research purposes, and since the birds we usually get form only a small subset of the birds in Singapore, the carcasses provide a valuable supplementary source of tissue and DNA."

He added that his work with the carcasses is linked to his current research on bird genetics, because the skin and tissue samples collected can go into long-term storage until needed for further study.

But his main research builds on work he did as an undergraduate on the striped tit-babblers.

"I'm interested mainly in how the fragmentation of their forest habitats affects the genetic diversity of the population," Mr Tan said.

A common misconception is that birds can simply fly away when their habitats are under threat, he said. But forest birds like the babblers hardly ever leave their habitats.

When such birds die with their habitats, the effects are twofold: There are fewer individuals available to mate and the gene pool shrinks; and habitats become fragmented, with populations living in each fragment becoming isolated.

The result is that genetic "errors", such as a pre-disposition to illnesses or physical defects, accumulate.

Analysing the genetic data of these birds gives conservationists like himself a better idea of whether the different populations are in-breeding or not.

Habitat destruction is not the only threat that birds face.

During migration season from late September to March, birds like pittas, flycatchers and kingfishers fly long distances from countries such as Siberia and China, stopping in Singapore to rest.

During these months, people might encounter injured birds, or birds that appear to be stunned or in a daze. This could be due to exhaustion from flying long distances, or disorientation, having been distracted from cues from the stars and moon by city lights.

"People sometimes try to 'rescue' them by taking them home or trying to feed them, but this often does more harm than good," Mr Tan said, citing how some people may try to feed an insect-eater with fruit.

People who find baby birds, especially after the prime breeding season between March and August, also tend to want to "rescue" them.

Instead, he said, the best thing to do is to call trained professionals from the Animal Concerns Research and Education Society (Acres) or Wildlife Reserves Singapore.

Some nature enthusiasts also pose a threat to these birds. Aggressive nature photographers on the prowl for "action" shots have been known to manhandle these creatures.

Last December, a photographer who tethered a tern chick's legs to a bush for a photograph was fined $500 for animal cruelty.

The incident drew the ire of the birding community in Singapore when photographs posted on Facebook showed a young tern struggling in front of a bush, unable to move away.

Mr Tan added that some photographers have been spotted injecting air and styrofoam into live fish at the Little Guilin nature park in Bukit Batok. This causes the fish to float to the surface.

"Birds like the grey-headed fish eagle that prey on fish would swoop down to catch them, providing the photographers with the perfect action shot – this is unethical and extremely cruel to both the fish and the bird," Mr Tan said. A bird that ate such prey could be poisoned or choke.

He believes there should be more dialogue between the authorities and the scientific and photography communities to discuss what practices are acceptable, and what are not.

"More importantly, I think good nature photography can happen only when photographers have some level of empathy for their subjects and recognise that birds are not simply automatons that mindlessly respond to stimuli.

"They are living creatures that are sentient and complex."

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THE ATTRACTION

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MR DAVID TAN, researcher from the Evolutionary Biology Laboratory at NUS