

What a lark: Birds of a feather sing together

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The lyrebird is the reigning king of karaoke in the animal world. Credit: Alex Maisey

(Phys.org) -- The lyrebird is the reigning king of karaoke in the animal world, with not even the birds being mimicked always able to tell the difference between the lyrebirds and the real thing, researchers at The Australian National University have discovered.

PhD candidate Anastasia Dalziell led the team from the Research School of Biology, part of the ANU College of Medicine, Biology and Environment, in the study comparing lyrebirds' mimicked birdcalls to the real thing. Male lyrebirds imitate about 20 to 25 species of birds during the breeding season.

“To test the accuracy of the lyrebird’s mimicry, we performed an acoustic analysis comparing the real songs of the grey strike-thrush with

the lyrebird's mimicked version. Grey shrike-thrushes sing a complex and beautiful [song](#), but lyrebirds can accurately mimic them all the same," Ms. Dalziell said.

However, with so many impressions of other birds' songs, lyrebirds have found a way to save space in their musical repertoire.

"We found that the lyrebirds were accurately replicating the structure of shrike-thrush songs, but they sang an abridged version containing fewer repeated notes than songs sung by real shrike-thrushes. This meant that lyrebirds could demonstrate both the accuracy and versatility of their mimicry in a shorter period of time than if they mimicked the whole shrike-thrush song," Ms. Dalziell said.

"We also wanted to 'ask an expert' how accurate lyrebird mimicry was, so we played back recordings of lyrebird mimicry to the strike-thrushes themselves. Surprisingly, strike-thrushes approached the speaker broadcasting mimicked songs as well as the shrike-thrushes' own song."

Ms. Dalziell and her team further tested the accuracy of the mimicry by playing the imitation as part of a musical stream of mimicked songs of other birds. Since lyrebirds usually mimic lots of different species of bird in quick succession, this gave the strike-thrush a clue as to who the singer might be.

"When strike-thrushes were played a song embedded in a sequence containing [mimicry](#) of other [birds](#), they were a bit better at telling the difference between the real thing and a mimic, and approaching a mimetic song less often than when songs were presented on their own," Ms. Dalziell said.

"The reason the male lyrebird has developed this impressively accurate repertoire is unclear. It might be difficult to be an accurate mimic, so

female lyrebirds may get an idea of a male's quality by assessing how accurate he is.

“Lyrebirds aren't born good mimics. Young male lyrebirds are really bad mimics and they are hopeless at imitating grey strike-thrush songs. They improve as they get older, but that takes years and years of practice.”

More information: The research has been published in the journal *Animal Behaviour* and is available online at www.sciencedirect.com/science/.../ii/S0003347212001248

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