

# using social media

## Scared skinks eavesdrop on wary weavers

**M**any birds make scolding calls at predators to warn other individuals – often their close relatives – of a threat. Other birds may eavesdrop on these signals because predator-related information can be particularly valuable. Some bird species even hijack these calls. For example, Fork-tailed Drongos use false alarm calls to steal food from other birds. Birdwatchers also exploit this phenomenon to lure skulking species out of cover; ‘spishing’ mimics alarm calls. But we are not the only mammals to benefit from bird calls; chipmunks, for example, use parid alarm calls in decisions about where to forage.

Eavesdropping between widely different species is an exciting field of study and the ecology of information transfer within animal communities still has many

secrets to be discovered. PhD student Anthony Lowney is working on describing the diverse animal community that uses Sociable Weaver nests as refugia in the harsh Kalahari environment. Not all of the many birds, mammals, reptiles and insects that use the weaver nests live in harmony. One of the more common residents is the shy Kalahari tree skink, which shares a common enemy with Sociable Weavers: the small but ferocious Pygmy Falcon.

As the adage advises, ‘the enemy of my enemy is my friend’, and Kalahari tree skinks appear to take this concept to heart by using information from Sociable Weavers to reduce the predation risk posed by Pygmy Falcons. Anthony has spent a lot of time watching skinks on trees. He observed that more skinks bask in the open and venture farther from the colony tree when they have hundreds of Sociable Weaver eyes to warn them of an approaching falcon. When the weavers are away foraging, the skinks stay closer to cover and fewer are observed.

To confirm this theory, Anthony compared the skinks’ reactions to a human approach when weavers were present and when the weavers were away from the colony. In the birds’ absence, acting as the human ‘predator’ Anthony could approach to within three metres of a skink before it fled into cover. However, with weavers present, he could seldom get within eight metres of them because the weavers raised the alarm and fled to safety, with the skinks following suit. Interestingly, skinks don’t flee before the weavers react, indicating that when weaver information is available, the skinks use it and trust it. But what cues are the weavers using?

Anyone who has visited a Sociable Weaver colony can attest that the weavers chatter a lot. However, when a Pygmy Falcon approaches, the chattering is replaced



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*A Kalahari tree skink vigilant and near its weaver nest refuge.*

by a distinctive alarm call, likely to be the equivalent of shouting ‘Falcon! Falcon! Falcon!’ To test whether the skinks react to this change in the weavers’ calls, Anthony performed an experiment that used recordings of weaver alarm and chatter calls. Observing skink reactions from a distance, he played the social chatter and the skinks foraged and basked normally, even when no weavers were present. But when he played the weaver alarm calls, the skinks’ behaviour changed dramatically: they lifted and turned their heads, seemingly scanning for approaching danger, and soon fled into cover.

Skinks therefore appear to use the weavers as an early-warning system by eavesdropping on their calls. Being warned by potentially hundreds of observant weavers is a useful risk-management strategy for skinks. This information facilitates the skinks coexistence with Pygmy Falcons at Sociable Weaver colonies, helping them to avoid lethal encounters. This work is a first step towards demonstrating the potential importance of information use in determining the outcomes of interactions between species that associate with Sociable Weaver nests. Future work is likely to unveil more subtleties within this complex multi-player system.

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*A Pygmy Falcon with a skink meal.*

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