Feather Fascination!

with local Birdwatcher, Jim Butler

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BMAD & TREE DEATH

Bell Miner Associated Dieback (BMAD) is a form of canopy decline and tree death observed in eucalypt forests occupied by Bell Miners. The presence of the aggressive, colony-forming Bell Miner, in the canopies of unhealthy eucalypts has been well reported in the scientific literature. In 2008 BMAD was nominated as a key threatening process to forests in South Eastern QLD and a restoration project was started in 2012.

The Bell Miners are cousins of the Noisy Miners, and both are infamous for their aggressive behaviour towards other bird species. In particular, both species actively police a "small bird exclusion zone" in their territories. Recently I took a birder from South Africa to see a Bell Miner colony and when he heard the bell sound he would not believe it was from a bird. It took some time before he could see a Bell Miner make the sound because they usually stay high in the canopy where their food is stuck to the leaves and are extremely well camouflaged by their colouring.

Because of their aggressive behaviours, high density colonies of Bell Miners are associated with areas of the bush that have fewer bird species and lower bird numbers, particularly the small insectivores. The insectivorous Bell Miner feeds mainly on psyllid nymphs, sap suckers, which construct a scale-like covering - a "lerp" – on the leaves. Beneath the lerp they shelter and busily feed on the sap in the leaf. The Bell Miner colony excludes all other insectivores from their territory which leads to a drastic reduction in the consumption of psyllids. The psyllid population therefore flourishes with the Bell Miner protection and a Malthusian explosion in the population takes place. The massive psyllid population eventually damages the foliage and health of the trees in their territory so the Bell Miners move on!

Happy Birding in a healthy bush – Jim

~ Jim

Image: Bell Miner taken by
Ed Frazer at Brookfiled ©