

Notes on the Pathogenic Bell Miner Associated Dieback (BMAD) Cycle

By Susan and Wayne Somerville

We came to see the lantana/dieback/bellbird relationship in the following way.

Broken canopies from logging and changed fire and grazing practices encouraged lantana to dominate the lower and mid-stories of forests, and this provided ideal nesting sites for Bell miners.

Bell miners are particularly aggressive birds and the lack of a mid-story suited their style of attack and gave them a competitive advantage over other birds that also feed on the psyllid insects that suck sap from eucalypts.

Researchers at Macquarie University found that, unlike birds such as the pardalotes which kill the psyllid insect when they eat the sugary lerps covering, when the Bell miner feeds it tends to leave the insect behind and alive.

So, you end up with more and more Bell miners eating lerps and more and more sap sucking insects attacking the trees.

At the same time, the heavy lantana mulch increases soil nitrogen, which further weakens eucalypts.

Psyllids particularly like new leaf growth, and the combined effects of the choking lantana, the thick mulch and the insect attack effectively prevents the native forest from re-establishing itself.