

NSW Parliamentary Inquiry: Long term sustainability and future of the timber and forest products industry. Jim Morrison, North East Forest Alliance, North Coast Environment Council

I have tertiary qualifications in Ecology as well as Geography and Planning and have been involved in projects related to eucalypt forest health for more than twenty years. My role as Chairman of the Bell Miner Associated Dieback Working Group (BMADWG) for fifteen years 2001-2016 provided extensive insights into appropriate forest management. The BMADWG managed State and Federally funded projects totalling several million dollars through this period. I continue to work as a volunteer advisory consultant on BMAD projects and am widely considered an expert in this issue.

The NSW forestry sector describes itself as a sustainable industry practising Ecologically Sustainable Forest Management. (ESFM). Their inability to manage BMAD post logging in moist 'at risk forests' is just one example that belies any claims of sustainable forest management as espoused by Forest corps and its industry proponents.

The BMADWG included diverse stakeholder representatives and endeavoured to understand the causes of BMAD and develop methods to bring it under control. It achieved a number of positive milestones in its fifteen years of operation. However, it was handicapped by Forest Corp and industry lobbyists refusing to accept that logging played a major role in its development. This is despite the fact that its well-respected senior Forestry research scientist Dr Christine Stone in 1999 concluded that 'canopy disturbance' ie logging, was likely the primary causal factor in the development of BMAD. Similarly in 2005 the NSW Scientific Committee determined 'Forest eucalypt dieback associated with over abundant psyllids and Bell Miners' (BMAD) as a Key Threatening Process. The committee made a conclusive finding that: *"Over-abundant psyllid populations and Bell Miner colonies tend to be initiated in sites with high soil moisture and suitable tree species where tree canopy has been reduced by 35 – 65% and which contain a dense understorey"*

Most independent ecologists now agree that the resultant proliferation of understory shrubs, predominately lantana, following canopy disturbance (ie logging) provides enhanced nesting success and survival opportunities for the Bell Miners, while the abundant growth of new soft eucalypt leaf tissue provides enhanced resources for sap sucking psyllids .The sugar based secretions of the psyllids form a scale called a lerp which bell miners utilise as a food source. Their particular feeding habits allow them to remove the lerp without killing the psyllid which continues to produce lerps. Other birds which would kill the psyllids are driven away by the aggressive, territorial behaviour of the Bell Miner. The psyllids defoliate the trees which are successively attacked as new regrowth emerges, eventually leading to tree death. The end result of unmitigated BMAD is total ecosystem collapse which is apparent across the Border Ranges and northern parts of the Richmond Range. In badly impacted sites there are areas of 10-20 hectares where all susceptible eucalypts are now dead stags over a sea of lantana. There is no chance of natural regeneration as seed production is reduced prior to tree death. The most susceptible eucalypt species are Flooded Gum, Blue Gum, Grey Gum

and Ironbark. The moist, productive, escarpment forests are particularly susceptible, although if unchecked the problem extends into drier forest types and additional eucalypt species.

BMAD has increased in distribution and intensity over the past twenty years. It extends from SE Qld to Victoria. There are at least 100,000 hectares of forest currently impacted in NE NSW alone.

The Forest Corp and industry reps on the BMADWG doubted the views of their own researcher and continued to argue that logging was not the main cause, rather that it was likely related to reduced fire frequency and undertook projects to prove this hypothesis.

The BMADWG supported Forest Corps to undertake adaptive management trials. to address BMAD at Mt Lindsay and Donaldson State Forests in NE NSW. Treatment of various plots included combinations chemical treatment, mechanical clearing and burning. They hoped to prove that logging could be carried out in these forests while also controlling BMAD. After more than ten years the trials have failed to demonstrate that Forest Corp have an understanding of how to deal with this significant forest health issue. Almost all of the plots where work was undertaken exhibited higher densities of lantana and bell birds and further declines in forest health than the controls. Forest Corp did provide some useful information on costs of treatment for BMAD ranging from \$200-2500/hectare, depending on severity.

A relatively recent independent, systematic literature review of BMAD once again clearly indicates that canopy disturbance is the primary causal factor in the development of BMAD .(Silver, MJ and Carnegie AJ, 2017)

It is clear that productive moist sclerophyll forests at risk of BMAD are extremely difficult and costly to appropriately manage post logging, due primarily to weed invasion which requires ongoing active treatment over many years to overcome. This is almost impossible across rugged terrain, as in the escarpment forests. The cost of appropriate mitigation would far exceed the returns from logging. Many of these BMAD impacted forests should now be considered beyond viable commercial management.

Yet Forest Corp continue to log BMAD affected and at-risk forests with no effective mitigation plans to address the resultant downward spiral in forest health. This reduction in regenerative capacity of our native forests cannot be considered to be either economically or ecologically sustainable and will significantly, negatively impact on future timber supplies.

The most appropriate management for these forests is to totally avoid disturbance and undertake effective long-term rehabilitation to ensure the long term non timber values of these High Conservation Value forests are secured.

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