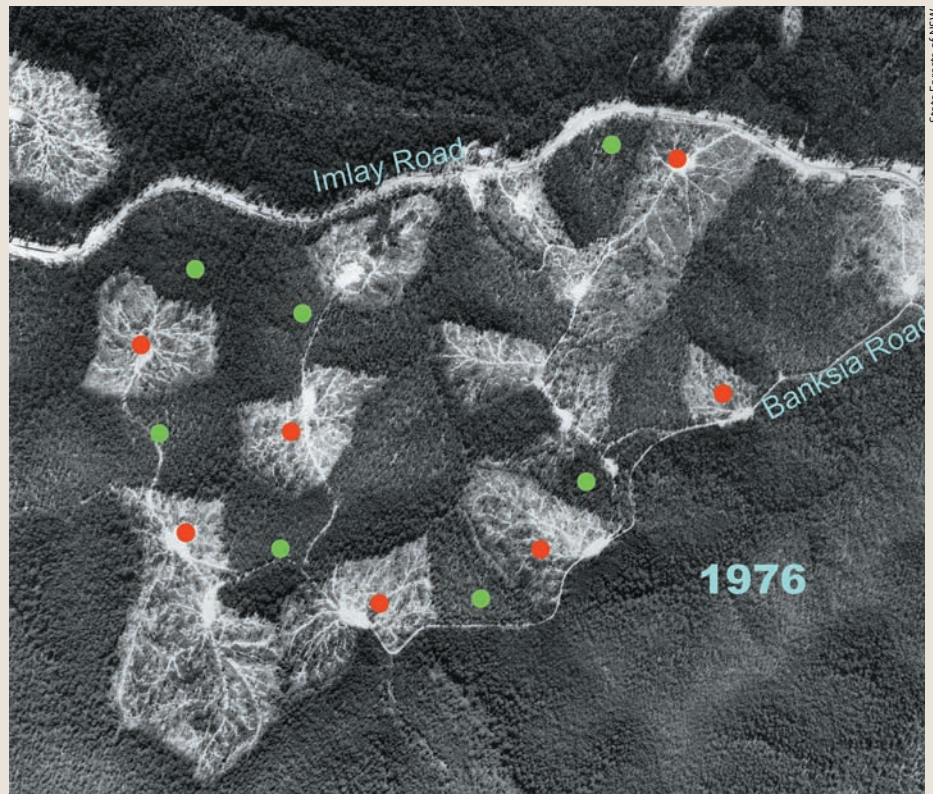


# Insight into bird recovery in logged areas

A study by the Research Division of State Forests of New South Wales suggests that it takes up to 22 years for populations of most bird species to recover in regrowth areas after intensive logging. The study also showed, however, that some hollow-nesting bird species, such as cockatoos and treecreepers, had not fully recovered because no old trees containing nesting hollows were retained. It may take up to 165 years for such trees to regrow, underlining the importance of their planned retention for native species.

The research was conducted in coupes near Eden, in New South Wales, which were logged in 1976 using protocols that did not include the retention of any old or mature trees for wildlife habitat, or the retention of unlogged forest along drainage lines. Adjacent unlogged coupes containing similar vegetation types were selected for comparison, and birds were counted on one-hectare plots during 1980, 1989 and 1998.

The survey team found that most bird species that foraged among canopy foliage, in the air, among the understorey and on the ground had recovered within 22 years of logging. Five of these species were significantly more abundant in the logged coupes, including the bell miner (*Manorina melanophrys*), which is often associated with disturbed forest. However,



State Forests of NSW

An aerial photo taken during 1976, when the alternate coupes were first logged, showing the locations of the unlogged and logged coupes sampled in this study.

some hollow-nesting bird species, including cockatoos and treecreepers, had not fully recovered.

‘Without the presence of some old trees nearby, recovery for some species might not be expected for at least 165 years, when suitable tree hollows begin to form,’ say the survey leaders in the journal *Emu*.

The team also observed a change in the bird populations across both logged and unlogged coupes over time. This suggested that the forest regrowth on logged coupes had recovered to the stage where it was

contributing to the capacity of the unlogged coupes to support additional bird species.

Logging prescriptions in NSW now require a number of old trees to remain after logging, and the retention of unlogged forest along all drainage lines. Unpublished data gathered by team leader, Dr Rod Kavanagh, suggest this and other management procedure changes have significantly improved recovery of bird populations following logging. The team says conservation planning at the local landscape and broader regional scales is also needed to ensure suitable habitat quality surrounding logged coupes.

‘Unless unlogged or older aged forest is distributed throughout the landscape, and in close proximity to logged areas, much longer rotation lengths will be required.’

The study will continue to assess changes to the forest avifauna of the area following imminent, scheduled logging of half of the previously unlogged coupes.

● Wendy Pyper

**More information:**

Kavanagh, R.P. and Stanton, M.A. (2003). Bird population recovery 22 years after intensive logging near Eden, New South Wales. *Emu* 103, 221–231.

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Left: forest regenerating four years after intensive logging in 1976. Right: regrowth forest 22 years after logging.