Forestry's contribution to the loss of over-mature, hollow-bearing, wildlife habitat trees

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Introduction

Literally hundreds of Australia's unique fauna species are now listed as threatened and are, in the words of the NSW Scientific committee, ***"facing extinction if current trends are not reversed".***

The major factor that has been identified as causing this decline is, in almost every case, **habitat loss.**

About 33% of those threatened species are tree-hollow dependent. These range from Microchiropteran bats, through a range of gliders and possums to many bird species including most parrots and larger forest owls. **Of the 80 threatened animals and birds known to occur on the NSW north coast, 26 are tree-hollow dependent**.

In short, **every habitat tree that is destroyed, or succumbs to the forces of nature, further reduces the already critically scarce habitat for these species, pushing them ever closer to the brink of extinction**. However, it should be noted that there are many more species that are not yet listed as threatened, but still compete for this scarce resource, many of which are known to be declining in numbers across the landscape.

It is generally recognised that it takes in excess of 100 years for trees to start developing hollows. However, to develop large hollows, sufficient to accommodate owls for example, could take up to three times longer.

Because most of the north coast's forests have been subjected to one hundred and fifty years of logging, during which time most mature trees, as opposed to 'over-mature unmerchantable trees, have been removed, **leaving a 150 year gap in the supply of replacements for existing hollow-bearing trees that are reaching the end of their natural life.**

Past logging practices

In the past, large over-mature unmerchantable trees have been seen by forest managers as undesirable impediments to the regeneration and development of younger trees suitable for timber.

Many forests on the north coast were subjected to the TSI (Timber Stand Improvement) program in the 1980s, which saw all over-mature trees removed to encourage what was described as a "stand restart" to deliver even sized trees across the landscape that could be clear-felled in the future.

Not all large trees were removed. A few scattered mature trees were left as 'seed trees', usually all the same species to encourage the development of a virtual monoculture wood lot.

Widespread destruction of habitat trees has occurred in the past to improve timber stand quality.

Unfortunately, even those seed trees are not protected, and are logged several decades later once they have done their job, as is evidenced by the following comment from a Clouds Creek harvest plan (No HP3216), reporting that ***"Past forest management reserved good growing stock which is nearing its economic endpoint".*** **Those trees were logged as a result, leaving no habitat trees at all.**

A field day, organised by Forestry Investigators from the Department of Environment, Climate Change, and Water (DECCW) on February 12, 2011, inspected one 5 hectare logged site in that forest (Compartment 79), and it was confirmed that all, approximately 30, large trees had been logged while only 2 habitat trees were left, one of which was actually inside a buffer zone and should not have been counted.

At Doubleduke State Forest, where the above photograph was taken, seed trees were all logged 30 years later in 2010 (see photograph at left)

While this policy may have increased timber volumes per hectare, it was a disaster for biodiversity and has led to a number of unforeseen detrimental consequences, such as weed invasion and Bell Miner Associated Dieback (BMAD).

These damaging policies were supposedly terminated with the signing of the historic forest agreements in the late 1990s and the introduction of logging under the Integrated Forests Operations Approval and a Threatened Species Licence.

Regrettably, despite the new regulations, the 'culture' remains embedded within Forests NSW, and over-mature trees are routinely cut down, ostensibly for OH&S reasons, or whenever there are more than the required 10 per 2 hectares. Post harvest burning is also regularly used to remove habitat trees and stags (standing dead trees).

The evidence.

Marking up.

Despite the requirement for 10 habitat trees, 10 recruitment trees and 10 stags to be retained, independent audits commissioned by various environment groups have found widespread breaching of these requirements, not only at Clouds Creek which is detailed above, but also at Yabbra, Doubleduke, Girrard, and Grange State Forests, and all within the last 18 months.

Where marking up **is** undertaken, the chosen trees are frequently far from adequate. The tree pictured at right was marked as a habitat tree, yet did not have a single hollow, and appeared to have been left solely because of its small crown and its unsuitability for timber.

The tree pictured below can hardly be considered as a likely candidate for a recruitment tree any time within the next 100 years, yet it is marked as such. It was a healthy 20 year old sapling which will undoubtedly be logged in the future.

Clear evidence was provided to DECCW by a North East Forest Alliance audit at Doubleduke in 2010, that marking up of habitat trees was not undertaken prior to harvest as required under the Approval, and nowhere in any of the audited forests could the required number of habitat and recruitment trees be found. In all cases, freshly cut stumps of very large trees with hollow limbs (where the latter had not been burned) were in evidence, showing that potential habitat trees had been logged.

The supposedly effective 'recruitment tree' program, where 10 of these replacement trees must be left per every two hectares during each logging event, is little short of fraudulent. None of the 'recruitment' trees are mapped, and foresters freely admit that those trees will likely be logged next time around and a smaller tree marked instead.

Post harvest destruction by fire.

Much of Clouds Creek State Forest is rainforest or tall moist eucalypt forest, and therefore not conducive to burning. Nevertheless, post harvest fire was used in 2009 ostensibly to encourage regeneration.

Photographs of no less than 25 marked habitat trees were taken following that post harvest burning in Compartment 78 at Clouds Creek, which provided evidence that marked habitat trees like those below, showing unburned surrounds, had been deliberately torched.

An inspection of post harvest burning at Doubleduke State Forest by ecologists from the North Coast Environment Council on April 13, 2010, found the fire unattended with numerous marked habitat trees and large hollow logs still burning while some stags had been totally destroyed. All are supposed to be protected under the Approval.

In other yet to be burned areas, stacks of bark, removed during the logging process, had been stacked against the base of old-growth trees, and on top of large hollow logs, in what can only be described as a deliberate attempt to destroy them.

The Occupational Health and Safety excuse

Foresters and forestry workers have quickly jumped onto the OH&S loophole, and this has seen hundreds of habitat trees and stags wantonly destroyed:

At Clouds Creek

At Doubleduke

And even new roading can be undertaken to have the desired effect of removing unwanted impediments.

At Chaelundi - And then there is **“accidental”** destruction.

At Marengo

This tree, marked "R" for Recruitment Habitat, will not survive to fulfill its objective, while background trees were bulldozed for road construction.

Marked "H" for Habitat Tree, the damage caused will significantly reduce the life span of this tree and might even prove terminal.

While also at Marengo

Another common practice is to leave habitat trees exposed to the elements after logging (see left), with all support removed they will quickly succumb to wind storms and lightening strike. Either way the forester achieves his aim of ridding the forest of an unwanted space taker.

Then again old-growth trees can be ostensibly cut down simply to salvage a few metres if timber from the upper trunk such as this tree from Grange State Forest. As the Department of Environment inspectors rarely venture into the forest to audit compliance, the destruction of this hollow-bearing tree will escape any penalty.

Other old trees are simply cut, ostensibly for timber, and then discarded as useless as we found at Marengo State Forest.

Habitat trees are a crucial element in the struggle to retain biodiversity levels across the landscape, and their loss puts at risk the chances of survival for up to one third of all Australia's animal and bird species.

Ecologically Sustainable Forest Management (ESFM) is a key element of the Integrated Forest Operations Approvals signed over a decade ago. EFSM is clearly defined with the following definition from the IFOA itself, which states:

> **"ESFM is defined as the management of forests so that they are sustained in perpetuity for the benefit of society, by ensuring that the values of forests are not lost or degraded for current and future generations."**

The Department of Environment's failure to enforce the habitat tree requirements of Forests NSW Threatened Species Licence, is a failure in their duty of care, and will have deadly consequences for our unique fauna.

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