Hazard Reduction Burning

By Peter Stitt

This concerns the subject of hazard reduction burning, something the Conservation Movement is strongly opposed to.

Australia, when Europeans arrived, consisted of a series of biota highly adapted to what we now call hazard reduction burning. The reason is that this is what the aborigines had been practicing for 50,000 years or so.

They were greatly assisted in this by the existence in Australia of the "The Fire Tree", the eucalypt. The eucalypt promotes fire and is resistant to fire, so that in a regime of constant burning, eucalypts have a higher survival rate and you tend to get the type of monoculture remarked on by many early scientists, including Charles Darwin.

Early settlers repeatedly remarked on the constant burning carried out by the Aborigines and often described the Australian landscape as grasslands with widely spaced trees. Some examples:

> *'Amongst the trees, two were remarked whose thickness was two, or two and a half fathoms, and the first branches from sixty to sixty-five feet above the ground…the country was covered with trees; but so thinly scattered, that one might see every where to a great distances amongst them…Several of the trees were much burnt at the foot…'*
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> ABEL JAN TASMAN DESCRIBING THE STORM BAY AREA, TASMANIA IN DECEMBER 1642

> *'The country today again made in slopes to the sea…The trees were not very large and stood separate from each other without the least underwood; among them we could discern many cabbage trees but nothing else which we could call be any name. In the course of the night many fires were seen'*
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> JOSEPH BANKS DESCRIBING BULLI FROM THE DECK OF THE ENDEAVOUR 27 APRIL 1770

> *'…very barren place without wood…very few tree species, but every place was covered with vast quantities of grass…the trees were not very large and stood separate from each other without the least underwood.'*
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> JOSEPH BANKS DESCRIBING THE BOTANY BAY AREA 1770

> *After we had passed this swamp we got into an immence wood the trees of which were very high and large, and a considerable distance apart, with little under or brush wood.*
>
> J. WHITE DESCRIBING FRENCHS FOREST (NOW A SYDNEY SUBURB) 5 APRIL 1788

'…and at the head of the harbour, there is a very considerable extent of tolerable land, and which may be cultivated without waiting for its being cleared of wood; for the trees stand very wide of each other, and have no underwood; in short, the woods on the spot I am speaking of resemble a deer park, as much as if they had been intended for such a purpose…The grass upon it is about three feet high, very close and thick…

CAPTAIN JOHN HUNTER DESCRIBING PARRAMATTA 1788

'The extreme uniformity of the vegetation is the most remarkable feature in the landscape of the greater part of New South Wales. Everywhere we have an open woodland; the ground being partially covered with a very thin pasture.'

And

'In the whole country I scarcely saw a place without the markes of fire; whether these had been more or less recent - whether the stumps were more or less black, was the greatest change which varied the uniformality, so wearisome to the traveller's eye.'

CHARLES DARWIN, 1836

Since the advent of European man in Australia, we have, by preventing the Aboriginal practice of Fire-stick Farming, changed the landscape. There have been a variety of reasons, ranging from the preservation of post and rail fencing in the early days of the colony, through to the Conservation Movement's current opposition, which appears to be largely ideologically driven. As a result we typically have much higher fuel loads than in pre-European times. Fuel load is defined as the amount (expressed as t/ha) of ≤6 mm diameter litter on the forest floor.

Considering the effect of this, and quoting from a NSW bush fire personnel training manual (BP/6), typical data for the relationship between fuel load and fire intensity on a high fire risk day is:

Fuel load (tonnes/ha)	**Time to reach** (Years)	**Fire Intensity** (kw/m)
7.5	4	300
15	8	1,300
30	-	5,200

At 7.5 t/ha fires are relatively low intensity, bird habitat is largely undisturbed and animals can dodge around the slow moving fire front.

At 15 t/ha we are entering Crowning Wildfire territory.

At 30 t/ha Crowning Wildfires are common with, in windy conditions, fireballs up to 300m in front of the fire front. We are now in the extremely dangerous category.

The results of this can be seen in events such as the McIntyre Hut fire, which in January of this year devastated parts of Canberra. This fire was started by lightning strike in a National Park. The NSW National Parks and Wildlife Service (the NPWS), being heavily influenced by the Extreme Greens, had done little about hazard reduction burning, resulting in fuel loads claimed to be in the range 45 to 50 t/ha. Nonetheless, in relatively cool conditions the fire lay dormant for a few days, during which time it could have been put out. However when conditions turned hot and windy the fire rapidly got of control, ultimately ravaging the Canberra suburb of Duffy.

These excessive fuel loads lead to catastrophic uncontrollable crowning wildfires, which kill everything in their path. Despite this the Conservation Movement is still fundamentally opposed to hazard reduction burning, although they have had to indulge in a fair bit of ducking and weaving on the issue over the last few years. The result is a procession of government apparatchiks and members of the Conservation Movement making claims in the media to the effect that:

- The NPWS has carried out all the hazard reduction burning possible in a particular year.
- You can't hazard reduce the whole of NSW.
- Hazard reduction doesn't work.
- Hazard reduction is only (a small) part of the answer.

However an interesting counter statistic comes from the work of State Forests NSW (the former Forestry Commission). In 2001:

- State Forests managed ≈ ½ the area of this State as that managed by the NPWS.
- State Forests hazard reduced ≈120,000 ha to the NPWS's ≈12,000 ha.

The result was that in the December 2001/January 2002 bushfires State Forests had 70,000 ha ravaged by bushfires whilst for the NPWS the figure was 770,000 ha.

And, as previously noted, these high intensity crowning wildfires having a catastrophic impact on native wildlife.

From this it is obvious that the greatest danger to Threatened Species and to biodiversity in Australia, is the Conservation Movement itself, because of its opposition to hazard reduction burning.

In my view this is especially true in NSW.

Background, Peter Stitt

Peter Stitt has qualifications and experience in the fields of mining and geology.

People may wonder what a non-professional in the environmental field is doing rabbiting on about environmental matters. The simple answer is an association with the conservation movement going back to May 1950 when I joined the Sydney Bush Walkers (the SBW) an organisation, which I have belonged to, to this day.

The Sydney Bush Walkers Inc. is a pioneer conservation organisation; and before you burst into laughter at this claim, reflect on a few facts:

1. *When I joined the club as a teenager, the President was Tom Moppet. Tom spent quite a few years as secretary of the Australian Conservation Foundation.*
2. *A founding member was Myles Dunphy (not Milo Dunphy, Myles was Milo's father), now a saint of the conservation movement.*
3. *There was a lady by the name of Marie Byles, the first woman solicitor in NSW. Marie was central to the battle to save Colong Caves, perhaps the first really major battle won by the conservation movement. Out of that came the Colong Foundation for Wilderness.*
4. *Alan Strom another member was Protector of Flora and Fauna for NSW.*
5. *The National Parks Association was largely a child of the SBW.*
6. *Alex Colley, now over 90 and still going strong, was for many years the Secretary of the NSW Liberal Party and the Party's research officer. Alex was probably more influential than anyone was in persuading Tom Lewis, in 1967, to set up an organisation we now know as the National Parks and Wildlife Service.*

So over 50 years involvement with the Conservation Movement is where I am coming from in this talk.