

Fire-stick Farming in Victorian Forests

‘It may perhaps be doubted whether any section of the human race has exercised a greater influence on the physical condition of any large portion of the globe than the wandering savages of Australia’. This was Edward Micklethwaite Curr’s view of his world in 1883, when he published his reminiscences at the age of 63, reflecting on his long association with Victoria which started 42 years earlier. He spent his life managing squatters’ runs in northern and central Victoria near Heathcote and Tongala, on behalf of his father, the squatter and politician Edward Curr. He was peripatetic, and keenly observed the natural environment and its aboriginal inhabitants during his travels through northern Victoria. The bold statement he made in *Recollections of Squatting in Victoria* about the land management activities of aboriginal people has been used by groups intent on restoring what they call ‘aboriginal burning practices’ in forests. It is understandable that Curr’s opinions (or speculations) have had such an influence because there were no contemporary challenges to his views, and social historians with little ecological knowledge took them up and propagated them through generations of students of Australian history.

Curr’s ‘influence on the physical condition’ is attributed to aboriginal use of fire. Before examining this, the role of aboriginal people as ecosystem components, and their place in determining the form, function and behaviour of Victoria’s terrestrial ecosystems before white settlement needs to be assessed.

There is no doubt that aboriginals used fire in various ways and for various reasons across Australia, and that they were skilled in using it. In some places they still do, probably in the same way they did before European settlement, but two questions must be answered before the significance of aboriginal burning in Victoria’s forests and woodlands can be properly assessed.

The first question is straightforward: can we assume that aboriginal burning practices were uniform across the continent? The answer is obviously no for two reasons: differences in cultural tradition and ecological variation across the country. Forests and woodlands in the north of Australia are completely different to those in the south, just as those in the west differ from those in the east. This means that in the south-east we cannot extrapolate experience and historical records from the north and the west of the country. This foolish extrapolation is obvious in much published material, and is probably widely accepted.

The second question is more difficult to answer: what do Victoria’s colonial records tell us about aboriginal burning generally, and specifically in forests and woodlands, at the time of European settlement?

A useful starting point is to consider the size of the aboriginal population and, in particular, its distribution. It would be expected that where populations were dense, use of natural resources would be greatest and the likelihood of 'management' would be greatest, and this is confirmed by the existence of sophisticated eel and fish traps and permanent dwellings in south-west Victoria.

18,000 acres of all kinds of country to each aboriginal

The size of the aboriginal population of the Colony of Port Phillip at the time of first permanent European settlement is difficult to estimate, and published figures vary widely. At the low end, William Thomas, Assistant Protector of Aborigines at Narre Warren concluded that the total number could not be less than 6000¹. Edward Stone Parker, the Assistant Protector at Franklinford, put the number at 7500². Robert Brough Smyth attempted to estimate the density of the population using, and adjusting, Thomas's estimate: 'if we correct Mr. Thomas's estimate, so far as to make his figures applicable to the area in Victoria available for a savage people, and subtract from the area of the counties he has cited those areas within them which are covered with dense forests and scrub, we find that the total number would not exceed 3,000 – that is to say, about 18,000 acres [7300ha] of all kinds of country to each aboriginal'³.

A higher population density has been suggested by Michael Christie, who argues that these estimates are based on assessments of a rapidly declining population, at the time being decimated by disease. He considers that there were probably between 11,500 and 15,000 aborigines living in Victoria before white settlement⁴. James Dawson refers to epidemics after 1830:

The aborigines have been visited on several occasions by epidemics, which were very fatal. The first occasion which the natives remember was about the year 1830, and the last in 1847. The very small remnant of old aborigines now alive who escaped the first of these epidemics describe it as an eruptive fever resembling small-pox.⁵

John Hunter Kerr goes further, suggesting that disease spread rapidly after settlement at Sydney and 'it would appear from this that the small-pox spread all over the continent of Australia in 1798, when Admiral Hunter mentions in his diary that it was raging among the blacks at Port Jackson'⁶.

Explorers and early settlers frequently refer to ill health among aboriginal people, and Brough Smyth comments on its severity:

¹ Brough Smyth (1878), p.32.

² *ibid.*, p.31.

³ Brough Smyth (1878), p.35.

⁴ Christie (1979), p.7.

⁵ Dawson (1881), p.60.

⁶ Kerr (1996), p.12.

It must not be forgotten that long prior to the explorations of Sir Thomas Mitchell the native population had suffered severely from a horrible disease which, there is every reason to believe, was introduced by the whites. Small-pox had destroyed large numbers; and it is not probable, even after the lapse of forty years, when Sir Thomas explored the Darling and the tributaries of the Murray, that the several tribes had recovered the losses they had sustained by the terrible affliction that first made itself manifest at Point Maskeleyne.⁷

Judy Campbell suggests that the aboriginal population had plummeted long before the first records of aboriginal culture in Victoria, used here in an attempt to describe the situation, were made. She argues in *Invisible Invaders*⁸ that smallpox epidemics among aboriginals preceded local European settlement, that the disease was introduced by Macassan fishermen from the Indonesian island of Sulawesi and other islands near there, and that it slowly spread from the north to the south of Australia.

Interpretation of the role of aboriginal people in undisturbed (by white settlement) Victorian ecosystems therefore becomes more speculative. Before white maritime and terrestrial explorers and settlers made their observations, it is possible that aboriginal people had altered their land management practices in the face of a dread of disease and, possibly, the resultant influence on their spiritual beliefs. This could apply directly to the Mindi, discussed later, and the first white observers who described it may have been seeing a recent upsurge in adherence to this traditional belief (and consequent burning of shrublands and woodlands) due to stresses on the population before white settlement, or there may have been no effect at all.

The banks of all the lakes, rivers and creeks were frequented by them

Regardless of the actual population size in the natural setting before first settlement of Australia, the ecological role of aborigines would have varied across the country, and particularly in Victoria, with its variety of terrestrial ecosystems. A simplistic assessment using Brough Smyth's density estimate for the State and Christie's upper estimate of the total population of 15,000 produces a density of one aboriginal per 3,600 acres [1500ha]. This figure is meaningless unless distribution is considered (as Brough Smyth attempted to do), and it is clear that some vegetation formations were probably not inhabited at all by aboriginals, and others were only visited as necessary.

Brough Smyth summarised the situation:

All that is known of the original condition of the natives of Victoria points to this: that the rivers were their homes. The River Murray from Albury to the River Lindsay was well peopled; the Rivers Mitta Mitta, Ovens, Goulburn, Campaspe, Loddon, Avoca, Richardson, Glenelg, and Wimmera gave refuge to many tribes; in the lake country and on the coast and in Gippsland the tribes

⁷ Brough Smyth (1878), p.xix.

⁸ Campbell (2002).

were numerous and strong; but as regards the rest of the land included within the boundaries of Victoria, it was either unknown or but frequented for short periods in certain seasons⁹.

The wide, treeless basaltic plains which stretch from the River Wannon on the west to the River Moorabool on the east, and from Mount Cole on the north to the southern shores of Lake Korangamite on the south – an area of 8,000 square miles [2000ha] – were occupied by numerous small tribes. The banks of all the lakes, rivers and creeks were frequented by them¹⁰.

The mountain ranges ... are not fitted to maintain an uncivilized people during all seasons of the year

Occupation of forests, rather than woodlands, by aborigines appears to have been limited. Brough Smyth suggests that this is explained by both difficulty of access and inhospitability:

The mountain ranges, also, are not fitted to maintain an uncivilized people during all seasons of the year. ... The flanks of the mountains which extend from Forest Hill to the Pyrenees are clothed with dense forests, and in places are masses of scrub, some of which even yet have never been penetrated by man. These thickets cannot be passed by the colonists without great labour and much expense. They have to cut a track with the axe ... and if the party is not strong in numbers, the attempt is relinquished. Aborigines could never have searched but the margins of these areas. The mountain fastness, in winter covered with snow, and at times, in all seasons, shrouded in thick mists, were regarded with awe by the natives. Like the dark forests west of Mount Blackwood, they were held to be the abodes of evil spirits or of creatures – scarcely less to be dreaded – having the forms of men and the habits of beasts. It is certain that the blacks in the proper season occasionally visited the glens and ravines on both sides of the chain, but they did not live there. They visited them for the purpose of obtaining woods suitable for making weapons, feathers for ornament, birds and beasts for food, and for the tree-fern, the heart of which is good to eat, and for other vegetable productions.¹¹

The southern parts of the counties of Heytesbury and Polwarth, now known as the Cape Otway Forest, were for the most part probably unknown to the tribes who called the Colac and Korngamite country theirs. The labour attendant on a march through this densely-wooded district would not have been undertaken but in the pursuit of enemies; and it would never have been chosen by any savage people as a permanent abode. The rains of winter and the thick fogs of

⁹ Brough Smyth (1878), p.34.

¹⁰ *ibid.*, p.34.

¹¹ Brough Smyth (1878), p.33.

autumn and spring would have been fatal to the younger members of the tribes. Whether or not any families inhabited the river basins entirely separated from the tribes who had homes on the lands lying to the north and on the coast is not known. That the coast tribes could and did penetrate many parts of this area is not denied, but it is scarcely probable that any tribe would live in the denser parts from year to year.¹²

The hostility of such an environment may have been exacerbated by the risk of attack by dingoes as 'in some of the mountainous parts of Victoria, but especially in the Otway Ranges, the dingoes were so very numerous and fierce, and hunted in such large packs, that the natives were afraid to venture among them, and often had to take refuge in trees'¹³.

Despite these problems, the Otways may have been visited occasionally as 'the spear called 'bundit' ... is made of a very rare, heavy wood from the Cape Otway mountains...'¹⁴.

Occupation of forests could have occurred in rather different circumstances where 'dense wet forests become refuge areas, only to be sought by those less fortunate tribespeople whose physical and material inferiorities condemn them to the least desirable parts of primitive man's environment'¹⁵.

Travel through forests is another matter, especially in mountain forests in the east of the State. Peter Kabaila has mapped aboriginal pathways in the high country, tracks that were aboriginal trading routes and tracks for the procurement of food and raw material, like the annual harvest of Bogong moths. Tracks could also have been established for 'ceremonial and religious occasions, trade and exchange, warfare and fighting, and communications'¹⁶.

Rock wells like those near Maryborough in western Victoria, and in other widely separated places in box-ironbark forest in the same general area may indicate that similar tracks through forest country that was probably not permanently occupied had been established in that part of the State.

Tribal differences have to be considered, however, and generalisation could be misleading. On one hand, aborigines along the Murray River were, to some extent, unsuited to forests and 'accustomed as they were to open country the Murray River people had strong dislike of closed-in forests and hills where one could not see the horizon'¹⁷.

At the same time, at least one group was apparently connected with forests. Interpreting tribal names, Brough Smyth includes 'on the Loddon, the Kalkalgoondeet, 'the men of the forest''¹⁸.

It was not only dense, moist forests that appear to have been off-limits. Mallee areas in north-western Victoria would have been, at best, visited rather than populated.

¹² *ibid.*, p.34.

¹³ Dawson (1881), p.89.

¹⁴ *ibid.*, p.88.

¹⁵ Tindale (1974), p.56.

¹⁶ Kabaila (2005), p.23.

¹⁷ Tindale (1974), p.61.

¹⁸ Brough Smyth (1878), p.41.

In the north-western parts of Victoria there is a vast tract ... which is covered with *Eucalyptus dumosa* and *E. oleosa* ... and much of it cannot be regarded but as “back country” for the tribes bordering on it, to be used only at certain times during each season, when the productions which it affords might tempt the Aborigines to penetrate several parts of it.¹⁹

The blacks will not visit this range

In part of north-west Victoria, spiritual belief was probably just as important as difficulty of access and inhospitability. The destroying spirit Mindi [Mindai, Mindie, Mindye], a serpent, was believed to live there:

What the Myndie was to the blacks of the North-Western district, so was the Bun-yip to those dwelling on the coast and near the swamps of the Western district. Both were terrible, and both have their types in existing creatures. The python (*Morelia variegata*) may be said to represent the fabulous Myndie, and Koor-man (the seal) the Bun-yip.²⁰

William Thomas, writing to Charles La Trobe, Lieutenant-Governor of the Colony, stated that ‘Of all the beings most dreaded by the blacks, the principal is the Mindye’²¹ Their fear was such that early settlers were warned not to enter country inhabited by the spirit. Charles Browning Hall, a squatter, told La Trobe that he was warned in 1843:

Being thus settled in the Loddon district, in 1843 I formed one of a party ... to explore the plains to the north of the Pyrenees, induced thereto by the accounts the blacks gave of a large lake there, which we were anxious to see, in spite of the “mindai”, which they gave us to understand infested it, making a prey of emus and blackfellows, and which the old lubras of the tribe asserted would never allow us to return.²²

It could easily be assumed that that the story of the Mindi was a ruse to halt the northward progress of invaders like Hall, and it is quite understandable. There is evidence, however, that belief in the Mindi may have been genuine and that it may have had implications concerning exclusion of territory and burning practices.

There are various descriptions of the Mindi. John Hunter Kerr, a squatter near St Arnaud, and later near Coleraine, described it thus:

¹⁹ *ibid.*, p.33.

²⁰ *ibid.*, p.437.

²¹ Bride (1898), p.425.

²² *ibid.*, p.267.

The snakes commonly seen in Victoria rarely exceed six feet in length, but the aborigines used to speak of a far larger kind, known among themselves as the “Mindi”, which they assured me had been frequently seen in the mallee.²³

How much larger is described by Hugh McCrae, who added a note to his grandmother’s 1844 diary, quoting William Thomas, Assistant Protector of Aborigines: ‘The ‘Mindi’ often ascends the highest tree in the forest, and, like a ring-tailed possum, securing its hold, stretches itself over an extent of twenty and thirty miles [32-48km]²⁴.

An undated letter from Thomas to Charles La Trobe contains more detail:

Mr. Assistant-Protector Parker, of the Loddon, has supposedly discovered “in their ceremonies and superstitions the obscure and nearly obliterated relics of the ancient ophiolatry or serpent worship”, and this from the Mindye. The Mindye is certainly considered by them as a visible and invisible being. ... The Mindye has its residence, and some old prejudices exist among the aged that a certain family has the power of enchanting or incanting this being.²⁵

The family referred to is mentioned by Brough Smyth: ‘A family named Mun-nie Brum-brum was the only one that ever set foot on the territory occupied by Myndie’²⁶.

The area excluded from general occupation by aborigines due to fear of the Mindi is difficult to determine, but is based on Mount Buckrabanyule, an unprepossessing granite hill near Wedderburn:

Myndie inhabits a country named Lill-go-ner, which lies to the north-north-west of Melbourne – a long, long way from Melbourne. He lives near a mountain which is called Bu-ker-bun-nel, and drinks only from one creek named Neel-cun-nun. The ground for a great distance around the place where Myndie lives is very hard; no rain can penetrate it. It is hard ground (Kul-ke-beek). No wood but Mullin can grow near it. The ground is covered with hard substances, small and white, like hail. Death or disease is given to blacks who venture near this ground.

Bu-ker-bun-nel, or Bukra-banyule, is a granitic mountain, situated about eighteen miles north-west of Wedderburn, and about twenty-four miles [38km] west of the Avoca River. It is but a small area of granite, and lies closely adjacent to the Murray Tertiaries which occupy the whole of the mallee country. The Mullin in the text is probably but another name for the Mallee (*Eucalyptus oleosa* and *E. dumosa*). In describing this country, the aborigines no doubt included the whole area occupied by them and their families, and that embraced plains called Kow. These plains are found in the sandy tracts of the north-west. They are clay-pans – dried-up basins of old lagoons or lakes – and on the surface of them are found crystals of sulphate of lime and broken and powdered gypsum and selenite. These fragments of sulphate of lime are “the

²³ Kerr (1996), p.185.

²⁴ McCrae (1934). p.149.

²⁵ Bride (1898), pp.420-421.

²⁶ Brough Smyth (1878), p.444.

hard substances, small and white, like hail". The nearest Kow is about twenty miles [30km] to the west of Bukra-banyule.²⁷

Mindi 's influence was not confined to the north-west:

He is under the dominion of PUND-JEL. When PUND-JEL commands him, Myndie will destroy black people – young or old ... He is known to all tribes ... Myndie has several little creatures of his own kind, which he sends out from time to time to carry diseases and afflictions into tribes which have not acted well in war or in peace.²⁸

It therefore appears that in some cases, areas were off-limits: aboriginal populations would have been low, and correspondingly their land management activities would probably have been minimal. In other cases Myndie's influence may have only been temporary. Despite this, Brough Smyth reported that an area in central Victoria was permanently affected:

Mr. Skene, the Surveyor-General, informs me that a tribe inhabiting the country near Pitfield, northward of Lake Korangamite, told him, many years ago, that Myndie had his abode in a water-hole near the town now know as Pitfield. The blacks at that time were very much afraid of Myndie, and when Mr. Skene proposed to pitch his camp near the water-hole, they fled, and prophesied disasters to him and his party, who had approached so near the favoured abode of this dreadful serpent.²⁹

Pitfield – Native name: Mindai – Meaning in English: The native name of a large snake said by the natives to frequent the large water-hole at junction of creek immediately north of the township.³⁰

Belief in the Mindi may have constrained aboriginal activity in some parts of Victoria, but it may have had a more important effect:

When Myndie is known to be in any district, all the blacks run for their lives. ... They set the bush on fire, and run as fast as they can.³¹

Further east, spiritual beliefs other than the Mindi applied:

Loo-ernn's country – that which was peculiarly his own - was that tract of heavily-timbered ranges lying between Hoddle's Creek and Wilson's Promontory. The higher parts and the flanks of these ranges are covered with dense scrubs, and in the rich alluviums bordering the creeks and rivers the trees are lofty, and the undergrowth luxuriant; indeed in some parts so dense as to be impenetrable without an axe and bill-hook. Any aboriginal who dared to penetrate this country without the permission of Loo-ernn died a death awful to contemplate...³²

There is a range with a well-marked culminating point lying to the north-east of Western Port, which, the Aborigines say, is inhabited by an animal resembling in

²⁷ Brough Smyth (1878), p.444.

²⁸ *ibid.*, pp.444, 445.

²⁹ *ibid.*, p.444.

³⁰ *ibid.*, p.193. There appears to be some confusion here between the Mindi and the Bunyip.

³¹ Brough Smyth (1878), p.426.

³² *ibid.*, p.454.

form a human being, but his body is hard like stone. ... The blacks will not visit this range.³³

It is clear that before white settlement, the distribution of the aboriginal population in Victoria was quite uneven, and that the natural role they played in function and behaviour of terrestrial ecosystems would have varied considerably.

At higher elevations aboriginals' impact on the environment was probably minimal. Josephine Flood analysed early accounts of aborigines and fire in the Southern Uplands of New South Wales, which extend into Victoria, and concluded that:

Aborigines had little or no effect on high altitude vegetation, for they would have spent only a few weeks on the mountain tops each summer, would have utilised naturally open frost hollows and ridge tops as routes, and would have had no need of widespread fires for hunting Bogong moths, or for the hunting of game, since terrestrial mammals are few at these high elevations.³⁴

Most colonial writers suggest that the ecological significance of aboriginal activity in forests (rather than woodlands) was minimal and confined to their margins. Many later writers take a different view and argue that this ignores the most important impact of all, fire.

They tilled the land with fire

Aborigines in northern Australia use fire to manage vegetation, at least in some ecosystems, and the burns can be frequent. The vegetation types are quite different to those in south-east Australia, and there is summer, rather than winter, rainfall. Traditional practices have been handed down through tribes far removed from those who inhabited the south-east of the country.

The concept of 'fire-stick farming' seems embedded in the public psyche, helped along by popular printed works and television documentaries. Prominent among these is *The Future Eaters* by Tim Flannery, in which he suggests various hypotheses, one of which involves agricultural use of fire by aboriginals. This makes a lot of sense, but is it relevant to Victorian aboriginals?

An extensive quote from Flannery is appropriate here:

The full implications of the use of fire by Aborigines were first realised in 1969, when Professor Rhys Jones published a brief yet seminal article entitled Fire-stick Farming. In it he listed the uses to which fire was put by Aborigines; including amusement, signalling, to clear ground to facilitate travel or kill vermin, hunting, regeneration of plant food for both humans and kangaroos,

³³ *ibid.*, p.455.

³⁴ Flood (1980), p.19.

and expanding human habitat by limiting the extent of southern rainforest (which was largely unuseable by Aborigines).

Jones coined the phrase ‘firestick farming’ to describe the overall impact of the Aboriginal use of fire on the Australian landscape. His paper challenged the view that there was such a thing as a wholly natural ecosystem in Australia and, perhaps for the first time, mounted a serious challenge to the concept of terra nullius, for he saw Aborigines as farming the land, albeit through the use of fire. He also raised arguments concerning the role of fire in national parks, and of how fire there might be managed. These ideas are now familiar to many Australians, but in 1969 they were revolutionary.

Although Jones was the first person to bring the information relating to Aboriginal burning together, others had earlier seen parts of the picture.³⁵

Flannery continues by quoting Mitchell’s *Journal of an Expedition into the Interior of Tropical Australia*, published in 1848. The ‘parts of the picture’ Mitchell observed are unlikely to be relevant in Victoria. More important, however, is Flannery’s reliance on the ‘brief yet seminal article’ of Rhys Jones. It may have been seminal, but it is certainly brief, discussing only northern Australia, the ‘parts of the picture’ seen by Mitchell in New South Wales, and Tasmania, with no reference to Victoria.³⁶

Protagonists of fuel reduction burning, to protect property, are calling loudly for a return to traditional ‘fuel reduction’ as practised by aborigines in Victorian forests, and they appear to believe that aborigines frequently burned these forests before white settlement. The 2003 Esplin enquiry into the bushfires in north-east and eastern Victoria in 2002-2003 warned that we do not know enough about aboriginal burning practices and ‘we do not know enough about traditional burning strategies and objectives in southern Australia to be able to implement an Aboriginal fire management regime’³⁷.

Before this, influential history texts have passed on the idea that fire and aboriginal ‘agriculture’ are linked in south-eastern Australia. An examination of two of these texts is revealing.

In *Our Side of the Country: The Story of Victoria*, published in 1984, Geoffrey Blainey states:

Fire was the essence of many Aboriginal skills. They used fire to drive out animals when hunting; they probably used fire to encourage green shoots of fresh grass which in turn attracted grazing kangaroos.³⁸

The most important word here is *probably*.

In *A History of the Port Phillip District: Victoria Before Separation*, published in 1996, A. G. L. Shaw states that ‘the Aborigines also modified the environment by the use of fire’³⁹. He uses three sources to back up this statement. The first is a quote from Sir Thomas Mitchell’s *Journal of an Expedition into Tropical Australia*, p. 412. He introduces the quote

³⁵ Flannery (1994), pp.222,223.

³⁶ Jones (1969).

³⁷ Esplin (2003), p.122

³⁸ Blainey (1984), p.13.

³⁹ Shaw (1996), p.26.

with the comment ‘as Mitchell wrote about Queensland in a passage which applies just as well to Port Phillip’ This is ridiculous. The second source is Edward Micklethwaite Curr, discussed later, and the third is Jamie Kirkpatrick ⁴⁰, who uses only one source, Curr, erroneously referring to ‘his book on the pastoralist invasion of the western basalt plains’⁴¹. Curr wrote nothing about Western Victoria.

The issue of aboriginal burning before white settlement of south-eastern Australia is a hot topic in academic circles, as shown by the publication in 1997 of the views of Benson and Redpath⁴², and subsequent responses to them⁴³. In all of this, Edward Micklethwaite Curr features prominently as a promoter of the idea of fire-stick farming in Victoria, quoted in texts, scientific papers and local histories.

*Almost every part of New Holland was swept over by a fierce fire,
on an average, once in every five years*

Curr’s *Recollections of Squatting in Victoria* was first published in 1883 and contained the statement:

Mere hunters, who absolutely cultivated nothing – the spear, the net, and the tomahawk – could have produced no appreciable effects on the natural products of a large continent. Nor did they; but there was another instrument in the hands of these savages which must be credited with results which it would be difficult to over-estimate. I refer to the fire-stick; for the blackfellow was constantly setting fire to the grass and trees, both accidentally, and systematically for hunting purposes.⁴⁴

The last sentence contains three propositions. The first is that aboriginals carried ‘fire sticks’, and there is no doubt that they indeed carried fire from one place to another. Dawson describes how ‘while travelling, the natives always carry burning pieces of the dry thick bark of the eucalyptus tree, to light their fires with’⁴⁵.

Brough Smyth, discussing the twirling of sticks to make enough friction to produce fire (which he calls the fire-stick) agrees that fire was always carried by the women:

Their habits, in the ordinary life of a tribe, would prevent the necessity of having recourse to the fire-sticks. Whether encamped or travelling, a tribe is always well provided with fire. It is the duty of the women to carry fire. A stick,

⁴⁰ Kirkpatrick (1999).

⁴¹ Curr’s *Recollections of Squatting in Victoria* describes central and northern Victoria, not the western plains.

⁴² Benson and Redpath, (1997).

⁴³ Flannery, (1998).

⁴⁴ Curr (1965), p.88.

⁴⁵ Dawson (1881), p.15.

a piece of decayed wood, or more often the beautiful seed-stem of the Banksia, is lighted at the fire the woman is leaving; and from her bag, which, in damp weather, she would keep filled with dry cones, or from materials collected in the forest, she would easily, during her journey, preserve the fire got at the last encampment.⁴⁶

Curr's second assertion is that aboriginals were constantly setting fire to grass and trees. They may have, for several reasons discussed later.

He then refers to accidental burning. If aboriginals really were managing the land with fire their practices would have been based on 40 000 years or more of experience and they would have been careful rather than careless. Byrne supported this view in 1848:

It is a strange circumstance, with their many dense forests of huge timber, that the Aborigines seldom, if ever, indulge in large fires, and if you ask them the reason, they tell you that the time is not far distant when wood will be extremely scarce and difficult to procure, and that, therefore, they are desirous of saving it. This appears to be the only way in which the natives exhibit any providence...⁴⁷

Curr continues:

Living principally on wild roots and animals, he tilled his land and cultivated his pastures with fire; and we shall not, perhaps, be far from the truth if we conclude that almost every part of New Holland [Australia] was swept over by a fierce fire, on an average, once in every five years.⁴⁸

The three propositions here are probably a long way from the truth. The idea that almost every part of the continent would have burned in the same way ignores the heterogeneous nature of Australia's vegetation. A fierce fire needs large quantities of fuel and such fuel loads are unlikely to accumulate in many vegetation types within five years of a burn. Fundamentally, the statement ignores the population life cycle adaptation of wet sclerophyll forests, where eucalypts like Mountain Ash (*Eucalyptus regnans*) and Alpine Ash (*Eucalyptus delegatensis*) do not produce seed until 15 or 20 years of age (and are fire-sensitive until then), and mature individuals are killed by high-intensity fire. Curr's next proposition is simply confusing:

That such constant and extensive conflagrations could have occurred without something more than temporary consequences seems impossible, and I am disposed to attribute to them many important features of Nature here; for instance, the baked, calcined condition of the ground so common to many parts of the continent, the remarkable absence of mould which should have resulted from the accumulation of decayed vegetation, the comparative unproductiveness of our soils, the character of our vegetation and its scantiness, the retention within bounds of insect life (notably of the locust, grasshopper, caterpillar, ant and moth), a most important function, and the comparative scarcity of insectivorous birds and birds of prey.

This appears to be just a recognition that Australia's forests and woodlands differ from those of Europe. His conclusion is grandiose:

⁴⁶ Brough Smyth (1878), p.396.

⁴⁷ Byrne (1848), p.374.

⁴⁸ Curr (1965), p.88.

They must also have had an influence on the thermometrical range, and probably affected the rainfall and atmospheric and electrical conditions.

When these circumstances are weighed, it may perhaps be doubted whether any section of the human race has exercised a greater influence on the physical condition of any large portion of the globe than the wandering savages of Australia.

This statement is not just grandiose, but quite preposterous.

Some of Curr's contemporary writers allude to burning practices that may be interpreted as the use of fire as a management tool. Brough Smyth's work deals with the aborigines of Victoria, but appears to draw on experience from other parts of Australia. He mentions three examples: 'It was their custom to burn off the old grass and leaves and fallen branches in the forest, so as to allow of a free growth of young grass for the mammals that feed on grass ... they were at least careful to see that harm was not done to vegetables that yielded food'⁴⁹.

This paragraph discusses aboriginal intellect in general, and previously mentions Western Australia and the north-eastern parts of the continent. There is no indication that this observation refers to Victoria. He adds that [they] 'show, by burning off the grass and in many other ways, that it is their duty to make provision for their future wants'⁵⁰.

This is a footnote to a statement regarding food by Rev. Bulmer of Lake Tyers, presumably added by Brough Smyth. Bulmer himself does not mention burning:

... when the owner of such a section, or portion of territory [as I ascertained was the case at King George's Island], has determined on burning off the grass on his land – which is done for the double purpose of enabling the natives to take the older animals more easily, and to provide a new crop of sweeter grass for the rising generation of the forest – not only all the other individuals of his own tribe, but whole tribes from other districts, are invited to the hunting party, and the feast, or corroboree that ensue ...⁵¹

This is a quote referring to north-west Western Australia.

The men form a circle, and set fire to the bushes

Fire was used in hunting fauna, rather than modification of vegetation, in various ways. Brough Smyth cites two examples that possibly describe practices in Victoria:

⁴⁹ Brough Smyth (1878), p.xxxiii.

⁵⁰ *ibid.*, p.142.

⁵¹ Brough Smyth (1878), p.144.

They use fire at times, when they wish to take a number of animals. The men form a circle, and set fire to the bushes, and thus kill a great many kangaroo and other wild animals of the forest.⁵²

Buckley [William Buckley, the convict escapee who lived with aboriginals in the Geelong area for 32 years after 1803] says, in his narrative, that on one occasion, when the natives set fire to the grass and scrub of the forest for the purpose of enclosing and catching kangaroos, wombats, opossums, native cats, wild dogs, lizards, snakes etc. ...⁵³

John Morgan, in writing Buckley's account, provides some detail of the second example: 'the natives sometimes, and when the wind is favourable, hunt round a kind of circle, into which they force every kind of animal and reptile to be found; they then fire the boundary, and so kill them for food'⁵⁴.

More extensive use of fire in hunting may have occurred, as reported by George McCrae, referring to the Mornington Peninsula:

The blacks set fire to the top of the mountain for the purpose of driving out the wallabies from the bushes and killing them. The fire gradually encircled the brow of the Mount like a diadem on the head of a monarch. In the dark night its appearance was magnificent and imposing in the extreme; the smoke curling up among the trees in the morning made it appear as if Arthur's Seat was covered with cottages in whose chimneys fires were burning.⁵⁵

This was in 1844, and by this stage aboriginals were using fire to harass white settlers. They may not have been hunting wildlife.

Aborigines in Western Victoria used fire in a clever way to catch birds: 'in summer, when the long grass in the marshes is dry enough to burn, it is set on fire in order to attract birds in search of food, which is exposed by the destruction of the cover; and, as the smoke makes them stupid, even the wary crow is captured when hungry'⁵⁶.

They also used fire to ensure that no rubbish was left behind when they shifted camp:

The aborigines believe that if an enemy get possession of anything that has belonged to them ... he can employ it as a charm to produce illness in the person to whom they belonged. They are, therefore, very careful to burn up all rubbish or uncleanness before leaving a camping-place.⁵⁷

Some superstitions were connected to fire. Fires were lit in fleeing the Mindi, as described earlier.

Lightning was feared, and they had a strange approach to fires caused this way:

Fire caused by lightning ... is shunned, because there is a belief that the lightning hangs about the spot, and would kill anyone going near it. However much the natives may be in want of a firestick in travelling through the bush,

⁵² *ibid.*, p.186.

⁵³ *ibid.*, p.199 (footnote).

⁵⁴ Morgan (1852): 1996 Schicht edition p.96.

⁵⁵ McCrae (1934), p.165.

⁵⁶ Dawson (1881), p.93.

⁵⁷ *ibid.*, p.54.

they will not take a light from a strange fire unless they observe the footprints of human beings near it.⁵⁸

A puzzling superstition is the Wuurong:

There is a superstition, called Wuurong, connected with the tracking and killing of kangaroos. In hot weather a doctor, or other person possessed of supernatural powers, looks for the footprints of a large kangaroo. On finding them he follows them up, putting hot embers on them, and continues the quest for two days, or until he tracks it to a water-hole, where he spears it ... there seems to be no special meaning attached to this custom.⁵⁹

There may be no special meaning, but there is a predictable consequence. The combination of hot weather and numerous sources of ignition must have, at least on some occasions, produced wildfire that may have been extensive or intense. An ecological interpretation of this superstition is difficult, as although Dawson is describing aboriginal practices in western Victoria, he does not specify locations or vegetation types. It could be speculated that this practice led to areas which had not burned for a long time being deliberately burned, but that is only speculation.

The natives made signals by raising a smoke

The use of fire in signalling was probably significant. Sophisticated communication appears to have been involved. Dawson described how:

Sometimes, instead of dispatching men to give notice of a meeting, a signal smoke is raised by setting fire to a wide circle of long grass in a dry swamp. This causes the smoke to ascend in a remarkable spiral form, which is seen from a great distance ... if there is not a suitable swamp, a hollow tree is stuffed with dry bark and leaves, and set on fire. Or, a fire is made on a hill top.⁶⁰

Brough Smyth made a similar observation:

In Victoria, when travelling through the forest, they were accustomed to raise smoke by filling the hollow of a tree with green boughs and setting fire to the trunk at its base; and in this way, as they always selected an elevated position for the fire when they could, their movements were made known⁶¹ ... When engaged in hunting, when travelling on secret expeditions, when approaching an encampment, when threatened with danger, or when foes menaced their friends, the natives made signals by raising a smoke. And their fires were lighted in such a way as to give forth signals that would be understood by people of their own

⁵⁸ Dawson (1881), p.53.

⁵⁹ Dawson (1881), p.54.

⁶⁰ Dawson (1881), p.72.

⁶¹ Dawson did not attribute this observation to Brough Smyth, although both accounts are remarkably similar.

tribe and by friendly tribes. They exhibited great ability in managing their system of telegraphy; and in former times it was not seldom used to the injury of the white settlers, who, at first, had no idea that the thin column of smoke rising through the foliage of the adjacent bush, and raised perhaps by some feeble old woman, was an intimation to the warriors to advance and attack the Europeans.⁶²

He noted that Major Mitchell had seen such practices in action: ‘when Sir Thomas Mitchell was travelling through Eastern Australia, he often saw columns of smoke ascending through the trees in the forests, and he soon learnt that the natives used the smoke of fires for the purpose of making known his movements to their friends’⁶³.

Mitchell refers several times to smoke attributed to aboriginals in Victoria, but only two cases are explicitly described as involving signalling. The first was on June 3 1836, when he camped at the junction of the Murray and Darling Rivers. He feared that ‘native warriors’ had followed him down the Darling to prepare an attack: ‘Their gins had been left at their old camp; for as the party crossed a flat not far from it, and I fired at a kangaroo, their voices were immediately heard, signal columns arose in the air, and they hurried with their children to the opposite side of the Darling’⁶⁴.

The second case was on August 30 1836, when he encountered the Hentys at Portland where ‘the natives ... it is their custom to send up a column of smoke when a whale appears in the bay’⁶⁵.

Thomas Learmonth wrote to Charles La Trobe, recalling that in September 1837 he was one of a group of six returning from an excursion to Lake Corangamite when they surprised a large group of aborigines at the mouth of the Pirron Yallock: ‘We came upon them so suddenly that they had time only to set fire to their mia-mias as a signal of danger to the other tribes ... we saw by the smoke rising in different quarters that the signal had been observed and answered’⁶⁶.

It is clear that signal fires were an entrenched part of aboriginal practice, so it is not surprising that early explorers of Victoria’s coastline saw smoke on the mainland when they came close to the shore.

For these several days past the native fires had advanced nearer to us

Captain, then Lieutenant, James Cook had a brief view of the Victorian coastline on 19 April 1770 as he sailed up the east coast on the *Endeavour* and passed East

⁶² Brough Smyth (1878), p.153.

⁶³ Brough Smyth (1878), p.152.

⁶⁴ Mitchell (1839), p.115.

⁶⁵ Mitchell (1839), p.243.

⁶⁶ Bride (1898), p. 96.

Gippsland. He recorded no fires until he reached the New South Wales south coast. On 21 April 'in the ^{PM} we saw the smook of fire in several places a certain sign that the Country is inhabited'⁶⁷ and the next day 'saw the smook of fire in several places near the Sea beach'. Those onboard the ship included the botanist Joseph Banks and the botanical artist Sydney Parkinson.

Banks did not record seeing any smoke until 20 April, when 'at noon a smoak was seen a little way inland and in the Evening several more'⁶⁸. The next day:

Several smoaks were seen from whence we concluded it to be rather more populous; at night five fires ... Since we have been on the coast we have not observd those large fires which we so frequently saw in the Islands and New Zealand made by the Natives in order to clear the ground for cultivation; we thence concluded not much in favour of our future freinds.⁶⁹

Parkinson's first report of smoke is on 20 April, when 'about noon we saw some smoke ascending out of a wood near the sea t[s]ide'⁷⁰ and the next day ' We saw some clouds of smoke rising from them a good way up the country'. His most interesting comment was made on 25 April, when 'we saw several fires along the coast lit up one after another, which might have been designed as signals to us'⁷¹.

What on earth did Parkinson mean? Surely he was not arrogant enough to assume that the smokes were gestures of welcome as they most probably were quite the opposite: to the intruders they meant 'go away' and to the aboriginal people they meant 'be warned'.

Matthew Flinders sailed along the eastern Victorian coast in 1798. On 25 February he noted that 'the smokes which had constantly been seen rising from it showed that there were inhabitants'⁷².

Lieutenant James Grant sailed along the coast of western Victoria in the Lady Nelson in 1800 and noted fires onshore. His observations are recorded in his report to Governor King⁷³ and the log books of the Lady Nelson,⁷⁴ and unfortunately there is some variation in detail. The most complete accounts, choosing between each of these sources, show that on 4 December 1800 Grant went about 8km inshore seeking shelter from southerly winds in Discovery Bay and 'we plainly saw several fires on the shore'⁷⁵. The next day, Grant saw several fires and 'towards evening saw many fires a

⁶⁷ <http://southseas.nla.gov.au/journals/cook/17700421.html>

⁶⁸ <http://southseas.nla.gov.au/journals/banks/17700420.html>

⁶⁹ <http://southseas.nla.gov.au/journals/banks/17700420.html>

⁷⁰ <http://southseas.nla.gov.au/journals/parkinson/178.html>

⁷¹ <http://southseas.nla.gov.au/journals/parkinson/178.html>

⁷² Labilliere (1878), p.21.

⁷³ *ibid.*, p.36.

⁷⁴ Lee (1915).

⁷⁵ Labilliere (1878), p.37.

little way inland⁷⁶. They could have been campfires or small burn-offs but they were unlikely to have been wildfires as the weather recorded in the ship's log, although it was summer, was quite bland. Could they have been signal fires?

Native fires on ye distant hills

The Lady Nelson returned to the Victorian coast late the next year commanded by Lieutenant John Murray, who had replaced Grant. Murray reached Western Port on 7 December 1801 and on 13 December he noted 'At sunset native fires on ye distant hills'⁷⁷. On 17 December he 'observed that for these several days past the native fires had advanced nearer to us, and this day saw one fire that could be no more than 4 or 5 miles inland'⁷⁸.

Two days later he 'saw a large fire lighted on the opposite beach nearer the entrance of the harbour, it might have been 6 or 7 miles [10-11km] from the vessel, and in a little time it was left, and nearer to us, at a little distance from the beach, another very large fire was made'⁷⁹.

On 30 December, Murray reported that 'no fires have been seen these last three or four days'⁸⁰. On 2 January 1802, he 'observed fire a long way off in north-east Branch'⁸¹. The day before he had met with a group of aborigines after noticing a fire on the beach. He had previously seen that 'their fires were visible in several directions'⁸². When he prepared to depart on 4 January 1802 'they retired back into the woods, and about 6 p.m. doused their fire at once, although it must have covered near an acre [0.4ha] of ground'⁸³.

Francis Labilliere states that, on 5 January 'as the vessel ran along the Victorian coast towards Port Phillip dense smoke from native fires hid the land from view. At 3 p.m. the smoke had cleared away'⁸⁴.

This could have been a wildfire, but the log book of the Lady Nelson contains a little more detail of that day's activities when [we] 'found it impossible to survey any part of

⁷⁶ Lee (1915), p.10.

⁷⁷ *ibid.*, p.34.

⁷⁸ *ibid.*, p.34.

⁷⁹ *ibid.*, p.34.

⁸⁰ *ibid.*, p.35.

⁸¹ Lee (1915), p.35.

⁸² Labilliere (1878), Vol. 1, p. 68.

⁸³ *ibid.*, p. 70.

⁸⁴ *i ibid.*, p. 78.

the coast as yet from the numerous native fires which covered this low shore in one volume of smoke⁸⁵.

In quoting this entry, Labilliere adds a footnote: ‘this was possibly only that deceptive blue, hazy, atmospheric appearance, which in summer often alarms even experienced bushmen, making them think that bush fires are upon them, whereas the haze is either the result of heat or produced by smoke blown from bush fires at a considerable distance’⁸⁶.

This was probably not a natural fire caused by lightning (unless multiple strikes had occurred) that had produced the smoke, but a result of aboriginal activity because numerous fires are referred to. This activity may have been hostile, because during the encounter with aborigines the previous day, a musket was fired.

Murray noted on 5 February that ‘the past two or three days we were here numbers of native fires were seen on the coast and up both arms, since then they have disappeared’⁸⁷. Murray entered Port Phillip Bay on 15 February 1802 and went on shore, where ‘I saw several Native’s Huts, and very lately⁸⁸ they have burnt off several hundred Acres of Ground. Young grass we found springing up over all the ground we walked’⁸⁹.

How did Murray know that this ‘several hundred acres’ had not been burned by natural wildfire caused by lightning?

The next day ‘at sundown a native Fire was seen about a mile[1.6km] in land ... At 9 A.M.⁹⁰ ... We now saw the same fire just lighted by the Natives and presently perceived several of them come out of the Bush, but the moment they saw the vessel they sprung into the Woods out of Sight ... At 11 a.m. ... there was a native Fire Burning a little way in Land’⁹¹.

On 19 February, ‘One Native Fire in Sight on Arthur’s Seat, distant about ten Miles [16km]⁹². On 25 February, ‘Observed several very large Native’s Fires at the Foot of Arthur’s Seat and on the Western Side of the Port On 27 February, ‘A number of very large Native’s Fires on the Hills round the Eastern and Western Shores of the Port have been seen these two days past’⁹³. Again, on 6 March, ‘there were numerous Native’s Fires; indeed all round the Port to-day there were Native’s Fires, and some of them very large’⁹⁴.

⁸⁵ Lee (1915), p. 36.

⁸⁶ Labilliere (1878), Vol. 1, p.78.

⁸⁷ Lee (1915), p. 42.

⁸⁸ Labilliere says *lately*; Lee says *likely*.

⁸⁹ Labilliere (1878), Vol. 1, p. 87.

⁹⁰ Nautical time: the day begins at noon.

⁹¹ Labilliere (1878), Vol. 1 p. 89.

⁹² *ibid.*, p. 92.

⁹³ *ibid.*, p. 94.

⁹⁴ *ibid.*, p. 96.

Murray finally left Port Phillip on 10 March, and ‘for these last two or three days great numbers of Native Fires have been seen all round the Port, except between Arthur’s Seat and Point Palmer’⁹⁵.

Matthew Flinders arrived at Port Phillip shortly after, on 27 April 1802. During his stay of one week, the only reference to fire in his journal is: ‘Indented Head ... the grass had been burned not long before, and had sprung up green and tender’⁹⁶.

Later in 1802, in December, Governor King sent Surveyor-General Charles Grimes and Lieutenant Charles Robbins to thoroughly examine Port Phillip. They returned to Sydney on 7 March 1803, and in their reports they make no mention of fires.

Perhaps the tenth part of the trees are partly burnt

The first attempted permanent settlement at Port Phillip began on 7 October 1803, when the *Ocean* anchored in Port Phillip Bay. Two days later the *Calcutta*, commanded by Captain Daniel Woodriff, and carrying Colonel David Collins, who had been appointed Lieutenant-Governor, arrived and the site for the new settlement was chosen at Sullivan Bay (near Sorrento).

On 19 October, Woodriff ‘Observed a great smoke to the north’⁹⁷. A month later, in a letter to Evan Nepean at the Admiralty, he described the poor quality of timber available around the Bay, attributing this to sandy soil, lack of water and aboriginal fire:

The 3rd and grand cause is occasioned by the natives, who constantly carry fire with them and set fire to the whole country, probably to destroy the numerous snakes that the country abounds with. Not one tree in the distance of a mile has suffered more or less from these fires for, wherever the fire takes, the bottom of the trunk of the tree immediately rots and the next year is useless as the earth round the roots is so perfectly calcined that the roots can receive no moisture.⁹⁸

William Crook, a missionary at the settlement, made a similar observation:

One can scarcely walk ten yards [9m] without meeting traces of the natives – their huts ... but especially their fires. Perhaps the tenth part of the trees are partly burnt ...⁹⁹.

⁹⁵ *ibid.*, p. 98.

⁹⁶ *ibid.*, p. 118.

⁹⁷ <http://www.collinssettlement.org.au/woodriff.html> [p. 22]

⁹⁸ <http://www.collinssettlement.org.au/woodriff.html> [p. 36]

⁹⁹ Crook (1983), p. 8.

Of this group of first settlers, Reverend Robert Knopwood recorded the most detailed account of fires in the area. The first was on 7 December 1803: 'At 9 [p.m.], we observed a native fire near Arthurs Seat. 1/2 past, lightning at a distance'¹⁰⁰.

On 31 December: 'Great fires made at a distance from the camp; supposed set on fire by the party that escaped from the camp. At 10 [p.m.] we see a native fire across the bay, on the N.W. side of it, towards the lagoon; the natives were very distinctly observed by the fire'¹⁰¹.

The 'party that escaped from the camp' was several convicts, including William Buckley, who absconded on 27 December. Morgan describes, in Buckley's narrative, how, after reaching Swan Island several days later, 'we set about making signals, by lighting fires at night ...' and 'We remained in the same place ... six more days, signaling all the time ...'¹⁰².

There is a hint here that the convict and native fires differed in appearance, because Knopwood distinguished between them. He did so again, the next day, when 'in the eve observed fires of the natives', and two days after that, on 3 January 1804, 'at 3 [p.m.] great fires near the camp, made by the convicts'¹⁰³. Wildfire caused by lightning is unlikely to have been involved, because there was 'much rain' on 2 January. Perhaps the difference was the amount of smoke, and the native fires were just camp fires.

Relatively mild weather continued until 11 January, a 'very hot day ... In the eve at 9 we observed 2 large native fires on N.W.'. A week later, on 18 January, the temperature reached 102⁰F [39⁰C] at 2.30 p.m., and the next morning there was 'a strong hot N.W. wind, and the country all on fire about Arther Seat, and to the N.E. of it ... at 9 [p.m.] very hard rain, with lightning and thunder'. The next hot day was on 22 January and 'At 1 we observd the country on fire all round Arthers Seat, and to the N.East. The next morning, 'At 11 observed a large fire near the camp, between the Yellow Bluff and the camp'. A week later, on a cooler day, 'We observed a very large fire near the camp'¹⁰⁴.

Nicholas Pateshall was Third Lieutenant on the *Calcutta*, and noted shortly after arriving at the new settlement that 'although as yet few of the natives had appeared, there could be no doubt but the place was swarming with them from the constant fires round the bay'. This was soon confirmed, and on 18 November:

... on passing Arthur's Seat, the carpenter and party who were employed falling timber sent us word they were in immediate want of ammunition, as the natives were about to attack them in great numbers. We directly came to an anchor and sent the boats on shore to bring the timber and the party on board, that they might not be exposed to the treachery of the natives. On the 20th ... we moored

¹⁰⁰ <http://www.collinssettlement.org.au/knopwood.html>

¹⁰¹ <http://www.collinssettlement.org.au/knopwood.html>

¹⁰² Morgan (1852): 1996 Schicht edition, p. 20.

¹⁰³ <http://www.collinssettlement.org.au/knopwood.html>

¹⁰⁴ <http://www.collinssettlement.org.au/knopwood.html>

the ship a mile [1.6km] from the shore. We soon perceived the natives to be greatly alarmed, for the country in a short time was in a perfect blaze.

Pateshall made a similar observation of native fires being a response to European incursion on the *Calcutta's* return trip to Sydney as 'the natives appeared to be much alarmed as we run along shore, by their innumerable large fires, kept up day and night'¹⁰⁵.

The numerous reports of aboriginal burning during this first attempted settlement at Port Phillip can be interpreted in various ways. Much of the smoke reported undoubtedly came from camp fires providing warmth and a means of cooking food. Fires may also have been 'alarm fires', lit for two possible reasons: to threaten the white explorers and settlers, and to signal a warning to other aboriginal groups. There is certainly evidence that fires may have been lit in woodlands to hunt animals, and to, possibly, encourage growth of grasses. The large areas of burned country reported by Murray could have been the result of wildfire because he could not have seen aboriginals lighting the fires.

These reports of fire could suggest that, whatever the motivation, aboriginals burned often and, perhaps their fires were intense. James Tuckey, First Lieutenant of the *Calcutta*, explored the inland:

To endeavour to penetrate through the country in a N.W. direction, which we supposed would bring us to Port Phillip at about twenty miles [32km] distance from the camp. We accordingly set off at daylight of the third day from our night's station, which was about five miles [8km] from the entrance of Western Port, and had scarce walked a quarter of a mile [0.4km] when we came to an immense forest of lofty gum-trees. The country here becomes very mountainous; in the valleys, or rather chasms between the mountains, small runs of water trickle through an almost impenetrable jungle of prickly shrubs, bound together by creeping plants. After passing eight of these deep chasms in six miles [10km], which was accomplished with infinite difficulty in four hours, we found this country grow still more impregnable, vast fields of shrub as prickly as furze arresting our progress every moment.¹⁰⁶

Despite the first settlers' observations of many, and sometimes large, fires, this forest had obviously not been burned for some time.

Aboriginal use of fire took a new turn soon after white exploration and settlement began. As the first settlers at Sorrento had found, aboriginals probably used fire in response to threat. This was to be repeated as white exploration continued.

¹⁰⁵ Cotter – see <http://www.collinssettlement.org.au/pateshall.html>

¹⁰⁶ Labilliere (1878), Vol. 1, p.168.

The bush is all on fire around us

The first overland expedition through what is now Victoria was that of Hamilton Hume and William Hovell in the spring and summer of 1824-5. The country they crossed was gripped by severe drought, and they reported numerous fires. Some could have been natural wildfires, but most were attributed to aboriginal activity. Analysis of diary entries should provide some clues as to the ways aboriginals were using fire.

Hume and Hovell each kept diaries, but Hume's is no longer available. Fortunately, William Bland used both to compile his *Journey of Discovery to Port Phillip, New South Wales; by Messrs. W. H. Hovell and Hamilton Hume: in 1824 and 1825*, published in 1831. The explorers' route was from Lake George (near Canberra) to Geelong, through present-day Albury and then generally south-west.

The first record of smoke or fire is on 24 November near Whorroughly on the Ovens River, where 'the bush is all on fire around us, consequently our view is obstructed'¹⁰⁷ The next day, they travelled to Meadow Creek, not far from Moyhu and according to Bland 'all the country in their line of route to-day, had been burned, and a little to the Westward of this line, the grass was still blazing to a considerable height'¹⁰⁸.

Hovell's journal provides more detail of that day; 'All the country from where we started this Morning, is all burned, and in every diraction the Bush is all on fire, in one part, a little West of our Course, we can see the blaze some feet above the ground'¹⁰⁹.

Bland described grass on fire; Hovell spoke of bush on fire. This difference in their accounts may be of no consequence (grass and bush could mean the same thing), but the contrast between each in detailing the end of that day's travel is more interesting. Hume and Hovell reached an unburned plain, where, according to Hovell's journal, 'the grass has not been burned, and it appear brown, and dry'. Bland mentions their travails in reaching this new camping place, clearly referring to granite ranges 'covered with a kind of scrub', and at the camp site 'The grass is good. The natives evidently numerous'¹¹⁰.

Bland does not include Hovell's observations on reaching Meadow Creek: 'In every diraction, the grass is on fire, and by what we can see by their Signals one, to the other, their different fires, the trees which have been barked, & occasionally comeing across their tracks, I think they must be very numerous. At all events they never shew themselves to us'¹¹¹.

This is an explicit reference to signal fires.

¹⁰⁷ Andrews (1981), p.155.

¹⁰⁸ Andrews (1981), p.158.

¹⁰⁹ Andrews (1981), p.159.

¹¹⁰ Andrews (1981), p.158.

¹¹¹ Andrews (1981), p.159.

On 28 November the explorers reached the Broken River, near Samaria, where Bland wrote that ‘The natives hereabouts are evidently numerous, as they conclude, from their fires, the smoke of which is observed in every direction’¹¹². Again, Hovell added some detail: ‘Whatever place it is we go through, whether Mountains, plains, or Forests, we have every proof, that the Natives are very Numerous, we see their Smokes in every diraction’¹¹³.

By 2 December the exploration party had nearly reached the Goulburn River, and camped at Kanumbra, near Yarck. Earlier that day:

... we were obliged to stop as the Natives had set the grass on fire, in the diraction we want to go ... About 2. oClock we left this place as the Smoak and Fire had passed us by ... the whole Country (the grass) for Miles around was burned ...¹¹⁴

The next day they travelled through 6.5 to 8km of burned grass between Molesworth and Yea¹¹⁵. It was a hot day on 5 December, as they travelled toward Yea, and the party lost a dog, which Hovell ‘supposed that as the grass was on fire which we had to pass through had kept him back’¹¹⁶. By 11 December they were at King Parrot Creek, after their abortive attempt to cross Mount Disappointment, and ‘... all the Country around us now appear to be on fire...’¹¹⁷. The next day they climbed Mount Piper, near Broadford, and Hovell noted that ‘we could see that the Country is on fire in all directions, this appear to be the Season for their burning the old Grass to get new’¹¹⁸.

Hovell must have extrapolated some knowledge of aboriginal burning practices in New South Wales because he had been in Victoria for such a short time. Perhaps he was just naive.

Hume and Hovell camped near Lara on 17 December when, according to Bland’s interpretation of their diaries, ‘the numerous fires which were being made around them, apparently as signals among the natives, made them conclude, that it would be unsafe for the party to separate’¹¹⁹. Hovell assessed the situation as unsafe ‘... from the different signals which were making around us ...’¹²⁰. The return trip started two days later, after investigation of a loud cannon-like blast coming from Port Phillip Bay which the explorers suspected could have come from a ship. They examined the Bay and saw no ships, but ‘we took notice of two Smokes on the South side which the Natives had made as Signals to each other, after we Started’¹²¹.

¹¹² Andrews (1981), p.166.

¹¹³ Andrews (1981), p.167.

¹¹⁴ Andrews (1981), p.173.

¹¹⁵ Andrews (1981), p.175.

¹¹⁶ *ibid.*, p.181.

¹¹⁷ *ibid.*, p.195.

¹¹⁸ *ibid.*, p.199.

¹¹⁹ *ibid.*, p.220.

¹²⁰ *ibid.*, p.221.

¹²¹ *ibid.*, p. 227.

The observations of Hume and Hovell appear to contain a mix of different sources of fire, including the possibility of natural wildfire. Aboriginal signalling is certainly indicated, but the likelihood of fire used as harassment (perhaps in conjunction with signalling) seems to be most important. They encountered recently lit fires that were still burning, and fires lit ahead of them on their intended route. Hovell's assumption that aboriginals burned in early summer for 'the old grass to get new' may be correct, and if so, it would apply to the open plains and woodlands through which they chose their route to Geelong. Did this burning also involve forests beyond the woodlands?

Any reading of popular accounts of the expedition would suggest that the country was ablaze in the drought-ravaged spring and summer of 1824. The test of this is provided by a mistake that Hume and Hovell made, their attempt to take a shortcut to Port Phillip Bay over Mount Disappointment.

On 7 December, they crossed King Parrot Creek and ascended the mountain with great difficulty, as 'the brush was so thick, we could not see ten Yards [9m] before us ... we were obliged to go by guess, and to keep two men in front cutting away the brush wood for the Cattle to pass through'¹²².

The attempt to cross Mount Disappointment was abandoned, and the explorers travelled north and west to Broadford. Hovell encountered forest similar to that at Mount Disappointment three years later in his 1827 investigation of Western Port:

The space (extending from the Settlement to the Northward), to Red Buff, is a low swampy tea-tree brush, almost utterly impassable. The range immediately at the back (to the Eastward of this space) is not steep; but moderately high, abounding in timber, and almost impassable from a dense underwood.

Inland, from Red Bluff, in a Northerly direction for about 12 miles [19km], the country consisted of open forest, with a good soil, but scantily watered; at the extremity of which distance the country became impenetrable, in consequence of the extreme closeness of the trees, and the denseness of the low brush and underwood.¹²³

Clearly, aboriginals were not managing these forests using fire or, at least, frequent fire.

¹²² Andrews (1981), pp.183,185.

¹²³ *ibid.*, p.210.

*The Natives having set fire to everything in the shape of food
that would burn.*

On their expedition through 'Australia Felix' Major Mitchell's party was attacked by aboriginals on the Murrumbidgee on May 27 1836. Although Mitchell's account of the battle was suppressed at the time, evidence to a subsequent enquiry revealed that fire played an important role. John Waugh Drysdale, the expedition's Medical Attendant, stated that 'they went a little way off the camp and made a fire; they then made several fires around the camp; we were upon a creek and the natives attempted to surround us with their fires'¹²⁴.

Nearly two years later, Joseph Hawdon and Charles Bonney travelled along the Murray River, making the first overland journey with cattle from Sydney to Adelaide. On February 17 1838, below the junction with the Murrumbidgee they encountered large numbers of aboriginals:

Some high and thick brush, which we passed through during the day, was perfectly full of the Natives, most of whom were yelling and shouting behind the Cattle ... Whilst we were at dinner, on the banks of the river, about 150 of them sat in rows, about 100 yards[90m] off, nearly everyone having his spear leaning against his shoulder.¹²⁵

In the evening at dusk the Blacks were about us in great numbers and set fire to the small patch of grass which I had selected for the stock to feed on. ... the Blacks took to the river ... When they landed on the opposite bank they raised a shout, or rather a yell of defiance and set fire to the few reeds growing along the margin of the water.

From the eighteenth to the twentieth of February the drays travelled forty-two miles [67km] ... The stock had scarcely anything to eat, the Natives having set fire to everything in the shape of food that would burn. ...¹²⁶

About the same time, the Hentys were having trouble at Merino Downs near Casterton. Edward Henty recorded a hectic latter half of January 1838:

[19 January] 4 Natives made their appearance but not allowed near, watched us for 1.5 hour & fired the hills when they left.¹²⁷

[25 January] Shearing in the morning but obliged to leave off in consequence of two natives setting fire to the grass all around us within a few hundred (yards?) of the Hut. John came over in the afternoon, had great work to put the fire out. Wind S.W. Very hot.¹²⁸

¹²⁴ Cannon and Macfarlane (1991), p.78.

¹²⁵ Hawdon (1952), p.32.

¹²⁶ *ibid.*, p.33.

¹²⁷ Peel (1996), p.205.

¹²⁸ *ibid.*, p.206.

[30 January] Natives burning around us.

[31 January] Wind S.E. Natives burning the grass by the River. On approaching them they put it out but when we turned they commenced again with double vigour, fired a ball over them which only frightened them a little, for one fellow returned making a circle & lighting a fire as he went, rode after him & frightened him away.

[1 February] On my return I found that the Natives had been burning close to us, which spoiled our days shearing in consequence of being obliged to put the fires out.¹²⁹

In the same part of the State, and two years later, surveyor Charles Tyers was returning to Melbourne after surveying a route from Geelong to Portland. Near Hamilton, he camped at Henry Wedge's station on February 19 1840. Wedge's overseer, Patrick Codd, told him that 'the natives had been very troublesome here lately, endeavouring to burn them out and steal the sheep. They succeeded in burning the country for some miles round the station and one of the huts of the out-station with everything in it'¹³⁰.

Other squatters like D C Simpson, who settled at Glenisla Station near the Grampians in 1842, also faced a hostile situation and observed yet another aboriginal use of fire:

Mr. D. C. Simpson took up Glenisla station ... The natives used to steal his sheep and bring them over to the Wimmera to eat them, firing the country in between to avoid their tracks being seen.¹³¹

By this stage the white settlers were themselves using fire, both to promote fresh grass and to make firebreaks. A typical example was James Hamilton at Lake Bringalbert, near Apsley:

In 1846 all the country round here, then called the New Country, afterwards the West Wimmera, was covered with kangaroo grass – splendid summer feed for stock of all kinds. It was at its best during January, February and March, and remained good up to May, but it lost its colour after that, and gave place to a finer grass – herbs such as yams, etc. ... The country was like this for some years after 1846, until destroyed by the indiscreet use of fire ... I have known a flock of sheep to be hidden by the grass, and only discovered by its waving as they made their way through it. ... provision was made for a place to fly to for safety in case of fire. This was done by burning the grass in patches when it was half-green. ... Of course on such a day as the 6th of February, 1851, it was almost impossible to find a place of safety.¹³²

¹²⁹ Peel (1996), p.207.

¹³⁰ Cannon and Macfarlane (1991), p.365.

¹³¹ Carter (1911), p.15.

¹³² Hamilton (1914), p.37.

... we could never tell when a fire would swoop down on us and burn both fences and sheep. I have seen a fire coming out of the Mallee twenty miles [32km] wide, clearing all before it, but with the provision we used to make, we never had any serious loss ... We were in the habit of burning all rubbishy country in the autumn. I, myself, made a practice of setting aside all station work in March, and, taking five or six men and a supply of water, we burned the country into comparative safety ...¹³³

On Black Thursday, February 6 1851, the colonial era was almost over, and the time when aboriginal burning would have had any significant ecological influence was long gone. This is especially so in forests, which at the time of white settlement contained large quantities of dead and rotting material, and in many cases dense understories. Natural fire, caused by lightning, would have ensured that in the presence or absence of aboriginal occupation, forests would have burned from time to time.

Curr's assertion that aboriginals burned Victorian forests within, on average, every five years is obviously wrong, but it is perhaps too late to correct the myth he created. Generations of history students have been taught about fire-stick farming in forests because their teachers only had access to questionable material, and that is no fault of theirs. It is no surprise that pressure groups demand that Victorian politicians push for frequent burning of forests to protect assets, based on the idea that aboriginals burned frequently. It is interesting that most of the areas in which aboriginal agricultural practices using fire were perhaps employed were the grasslands and the open woodlands that were cleared many decades ago for agricultural purposes, with the possible exception of Red Gum woodlands with widely spaced trees in country suitable for production of sheep and cattle.

It is a shame that Beth Gott's excellent work on bush foods and aboriginal burning in open woodlands and grassy plains in south-eastern Australia has been misappropriated by those campaigning for frequent burning of forests. Her paper presented at the Australian Bushfire Conference at Albury in 1999¹³⁴ is widely quoted, but it extrapolates observations from other States and other vegetation communities and applies them to Victorian dry sclerophyll forests which she was not actually talking about. She was probably not trying to be funny when she described Edward Curr as 'a very perceptive pioneer settler', but his claims about aboriginal burning of Victoria's forests are so silly as to be almost comical. It's not funny at all. It's very serious as policy advocating frequent burning of forests appears to be founded on this myth that aborigines were firestick farmers in Victorian forests. They were not.

¹³³ Hamilton (1914), p.39.

¹³⁴ <http://www.csu.edu.au/special/bushfire99/papers/gott/>

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