

Traditional Owner conceptual model of high country burning

Informants: Elders/Traditional Owners with connections to the
Gunai, Monero and Ngarigo Aboriginal groups

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Traditional Owner high country burning model

Background

The issue of fire management in the Australian Alps has for many decades been at the centre of a vigorous and somewhat polarised debate. Different approaches proposed as to how fire in the high country should be managed typically rely on different assumptions about historical high country fire regimes prior to European settlement. The debate about pre-European settlement fire regimes can be characterised as spanning a spectrum between two alternate hypotheses:

1. That fire was an infrequent event in alpine and sub-alpine ecosystems, occasioned principally by occasional (low frequency) large high-intensity fire events, brought about by the co-incidence of drought, lightning and severe weather. Aboriginal fire use is suggested to have been restricted to small-scales, localised to gathering sites, and within a brief season when Aboriginal groups periodically gathered in the high country (ie. Aboriginal burning not considered to be a significant factor influencing alpine and sub-alpine vegetation). Frequent low intensity fire is considered likely to cause local extinction of fire-sensitive alpine and sub-alpine species and therefore planned low-intensity burning is generally excluded from alpine and sub-alpine areas.
2. That alpine and sub-alpine ecosystems historically have experienced a relatively frequent low intensity fire regime being a combination of unrestricted lightning fires – a very high proportion of which burnt at low intensity – and fire use in the high country by Aboriginal people (after European settlement, the Aboriginal fire use component was replaced by grazing and grazer burning). The resultant mosaic of different-aged burnt patches, accruing over a number of years, acted to significantly reduce the frequency, extent and impact of high-intensity fires occurring in adverse seasons. The cessation of Aboriginal burning (and in recent decades, prohibition of grazer burning) and the active suppression of a very high percentage of lightning fires, and most recently the removal of grazing by cattle, has led to unprecedented fuel accumulations across the high country which is fuelling a cycle of high intensity fires of unprecedented frequency and intensity.

Both alternate hypotheses rely on a view about how frequent and extensive the use of fire by Aboriginal people was in the Australian Alps. Each is supported by very broad generalisations about Aboriginal fire use. In an attempt to go beyond broad generalisations, DSE commissioned GHD to consult with Traditional Owners from Aboriginal groups with connections to Victorian high country landscapes, to identify knowledge and practice in relation to Traditional Owner fire use in the Victorian high country. GHD conducted a workshop with Traditional Owners from Aboriginal groups with connections to Victorian high country landscapes, to construct a model of high country Traditional Owner fire use.

Why Aboriginal groups with connections to Victorian high country used fire

Traditional Owners expressed that the question of why they used (and still use) fire is a strange question. This is because Traditional Owners consider they are inextricably 'connected' to fire in a similar way to being connected to land. Fire has for so long been a part of Aboriginal culture that it is an intrinsic component of their existence with, and connection to each other, the land and the spiritual world. For the Traditional Owner groups interviewed, they considered fire was a fundamental part of their everyday lives. Beyond a range of functional uses, fire has a central cultural significance.

At the family level fire was their equivalent of white man's kitchen, dining table and family room. For Aboriginal people most aspects of social interaction were undertaken around the fire. For example, cooking and eating, conversation, storytelling, planning and a range of other family-centred activities.

Fire as a central focal point of Aboriginal life continues from the family level to the inter-family interaction level (eg. fire was equivalent to white man's meeting table for daily and seasonal activity planning and class room for education), to the inter-tribal level (a long distance communication tool, a warfare tool, and the centre of various ceremonies). Very importantly also, fire is central to their connection with the land itself (a part of how they cared for the land and 'tilled' their country) and their connection to the spiritual world (fire was a means of communicating with the spiritual world).

To the Victorian high country's Traditional Owners, fire was an inextricable part of everyday life and was present wherever Aboriginal people were present. To this day, many Aboriginal people living in contemporary society still have a fire spot out the back of the house around which everyone tends to congregate and find comfort – it's still a fundamental part of their Aboriginality.

In functional terms, Traditional Owners expressed that fire was used to:

- look after the family,
- to make places safe, so you don't get burnt out, and to provide more generally for the safety of children,
- for warmth and cooking,
- to provide light at night (imagine sitting in the bush without fire to sit around and give light)
- caring for the land, a tool for tending nature's garden and to promote the growth of food sources,
- for ceremonial reasons - to bring new life, helps the kids grow, keep the land healthy, and look after totems,
- to regenerate the land - after occupying a certain area and harvesting foods and other resources, fire was used when leaving so that when they returned in the future it was 'renewed' again,

- for hunting and food gathering,
- for the production of tools, weapons, vessels, infrastructure, instruments and art,
- to keep travel routes open and country safe to travel through,
- to dry foods, possum skins and other goods,
- to communicate presence in an area or signal transit through an area to others;
- to protect waterways which were extremely important food sources for Aboriginal people (upon which high intensity fires could cause severe, widespread and long term health impacts),
- continued connection to healthy land is part of Aboriginal wellbeing, ‘we suffer if the country suffers’ (when we see big fires it’s like a death in the country – similarly for clearing trees from the land)
- spiritual reasons – communicating with spirits (eg. to let certain spirits know they were coming into an area of country; and cleansing bad spirits from areas).

Where Aboriginal groups with connections to Victorian high country used fire

Traditional Owners expressed, in the strongest terms possible, that **they have always maintained a strong connection to country, and this includes the high country.** They did not ‘divide the landscape up’ into units, categories or classifications as white people do – to Traditional Owners the land is all connected. Their use of fire in what ‘white men’ call the ‘high country’ was an extension of Traditional Owner’s use of fire in inland country at lower elevations and along the coast. Traditional Owners expressed that they used fire everywhere they went. Wherever Traditional Owners were they used fire for a range of purposes as outlined in the previous section.

As Traditional Owners used fire wherever they were, a useful method for identifying where they used fire is to identify the places they occupied and travelled.

There are a range of sources which document that Aboriginal groups occupied territories spanning all the major river valleys connected to the Victorian high country (some 70 named Aboriginal tribal groups river valleys emanating from the Australian Alps from Gippsland to the western slopes of the Australian Alps). Aboriginal census records and reports, and annual blanket distribution records, from the 19th century reveal highly dispersed occupation by Traditional Owner groups, and any many localities evidence of intense occupation¹. The following river valley systems, connected to the high country by travelling routes, are recorded as being occupied by Traditional Owner groups:

¹ Records of Robinson GA (Chief Protector of Aborigines for Port Phillip 1838 – 1849) and his successor Thomas W; reports of Smyth (Secretary Victorian Central Board for the protection of Aborigines 1869 – 78); reports of Tyers CJ (Commissioner of Crown Lands at Port Albert 1844 – 1858); Lambie J (Commissioner of Crown Lands – Monaro 1841 – 1848) and the accounts of Howitt and others indicate a large number of Aboriginal groups dispersed widely through the Monaro tablelands and South Coast (NSW); Gippsland, and the valleys draining to the west of the high country in north east Victoria and the south-west slopes area of NSW. Occupation extended well beyond the coastal plains and major river systems – groups occupied territories extending to the headwaters of rivers and their tributaries.

Gippsland side of Great Dividing Range (including far SE NSW high country):

- The upper Snowy river area including Dry river, Deep river, Delegate river, Bendoc river and Bombala river
- Lower Snowy river area including low Brobbrib river, Bemm river, Cann river, Wingan river, Genoa river and Wallagarah river
- Mowamba river
- Upper Murrumbidgee river
- Buchan river
- Tambo river
- Nicholson river
- Mitchell river
- Dargo/Wonnangatta Rivers
- Avon River
- Macalister river
- Thomson River
- Latrobe River

Western side of Great Dividing Range:

- Broken River
- Fifteen Mile Creek
- Ovens/Buffalo/Buckland Rivers
- Kiewa River
- Mitta Mitta River
- Upper Murray River
- Tumut River

Rivers were rich in resources and were extensively used by Traditional Owner groups. Surveys undertaken (eg such as those by Flood (1980) from the valley floors to the tops of the surrounding ranges; along the Alpine Highway and Monero Tablelands; and the junction of the Snowy and Deddick rivers to the upper regions) showed intense occupation.

There are numerous 'places of significance', including the following to name just a few of the better surveyed ones:

- Area of the Pyramids Massacre - located at the Pyramids near Buchan where the Murrindal river flows underground;
- Royals camp creek – this is both a historical and pre-contact site containing artefacts and scarred trees, located on the Snowy river downstream from McKillops bridge
- Cloggs Cave and New Guinea Caves near Buchan on the Snowy river indicate occupation of 17,000 years before present, and 22,000 years before present;
- A number of historic trails including (but not limited to) Deddick river Aboriginal route; Ingeegoodbee track; Cooma to Suggan Buggan station cattle route; Monero to Buchan travelling route on the west side of the Snowy river;

numerous other routes to the high country which pioneer cattlemen learnt from Traditional Owners

- A number of other ‘massacre sites’ and places of conflict including the place of the Wulgulmerang deaths; Murrendale homestead; and the Tambo crossing battle

Aboriginal presence within and use of alpine and sub-alpine areas

Traditional Owners consider their connection to the high country is permanent and not diminished by the fact that during the winter season the higher elevation parts of the landscape were not continuously occupied.

Aboriginal groups gathered in the high country (including in alpine and sub-alpine areas) to conduct a range of activities including:

- Initiation ceremonies;
- Inter-tribal conferences to decide ceremonial matters;
- War conferences;
- For seasonal bogong moth feasts/festivals.

Evidence of seasonal gatherings of Aboriginal groups for bogong moth feasts is well documented (eg. Helms 1890; Payten 1949; Flood 1980). Bogong moth feast gatherings typically occurred in late spring to early summer depending on seasonal conditions. Aboriginal groups from both the western and eastern sides of the Alps (including from coastal areas) travelled to the high country to take part in gatherings associated with bogong moth feasts. Accounts of early European settlers speak of large gatherings ‘ 500 at one time not being unusual’ (Mitchell, 1926). Groups travelling to the high country from afar held numerous other gatherings enroute to and from the high country. Traditional Owners identified that groups from as far away as Yorta Yorta country were known to have gathered in the high country.

The existence of bora rings above the snow line (eg. Bogong Mountain Bora Rings) and numerous sites containing Aboriginal artefacts provides additional physical evidence that Aboriginal groups had connections to and made extensive use of the high country, and their activities were not limited to bogong moth gathering. For example, more than 45,000 stone artefacts have been found in the Dinner Plain area, approximately 80% of these being of white quartz. The Mitta Mitta river is an area where a high number of artefacts have been found as well. On the Bogong High Plains, artefacts dating back some 10,000 years have been found and the area is known to have been a highly significant meeting place. Traditional Owners who were involved in recent Aboriginal cultural heritage surveys following the 2003 fires (when vegetation cover removal by fire improved prospects for locating sites and artefacts) consider only a fraction of their special places and camp sites have been discovered.

Traditional Owners expressed that there were compelling cultural reasons for Aboriginal groups to gather in the high country. Firstly, the high country is geographically situated at a location central to access from groups in south-eastern NSW, Gippsland, and the slopes and plains adjacent to the western fall of the

Australian Alps. Therefore, geographically it is a location convenient for the gathering of groups from all these surrounding areas. Gatherings in the high country provided a means for groups whose territories were separated by geography but who were linked by ancestry and culture. Inter-marriage between tribal groups was common, and thus gatherings provided the only opportunities for family groups and individuals to catch up socially and participate in cultural activities with blood relatives who had married into other groups (having a degree of equivalence with white people travelling to see grandparents or aunts, uncles and cousins). For these reasons gatherings in the high country were of great significance to Aboriginal people.

High country gatherings were also an important opportunity for trade between groups in high value items including food, medicines, weapons, bags, rugs, clothing as well as sharing knowledge and news. Some highly valued natural resources available in one tribal territory but not in others were of high trade value. Traditional Owners identified that greenstone implements of Victorian origin had been found as far away as the Northern Territory where greenstone does not naturally occur.

Traditional owner groups claim a strong connection to high country. They consider the fact that groups would make difficult and arduous round trips, for some groups exceeding 600 kilometres, on foot through natural landscapes is strong evidence of the very great cultural and spiritual importance Aboriginal people placed on their use of, and connection to, the high country. They affirm early European settler accounts that gatherings were large in numbers (and prior to early contact, were larger than many early settlers witnessed due to the decimation of Aboriginal populations by white man diseases which spread through Aboriginal groups following early contact in adjacent areas).

As tribal groups travelling to high country areas for gatherings originated from many different areas surrounding the high alpine areas, groups travelled along many different routes. Many of the major road routes in use today (eg. Omeo Highway), and access routes used by mountain cattlemen were routes originally used by Aboriginal people to gain access to the high country. Additionally, difficult routes navigable only on foot, often following rivers and tributaries through steep terrain to their source areas were used.

In summary, Traditional Owners consider their connections to, and use of, high country areas was extensive and of great cultural and spiritual significance. Whilst adverse winter conditions did not support occupation of high country territories throughout the year, the summer seasonal population was significant with numerous camps, gatherings and ceremonial sites active across the high country.

Use of fire while in and travelling to/from the high country

Whilst in and travelling to/from the high country Aboriginal people used fire for a range of purposes in accordance with traditional practice. Travel up into the high country was on foot and took several days or weeks depending on how far away a group was travelling from. Aboriginal people carried fire sources with them as they travelled. Traditional Owners identified that this was not just in the form of traditional firesticks, but also in the form of smouldering coals, including a particular woody fungus that smoulders for extended periods, carried in clay vessels. Fire was used as they travelled to keep their favoured travelling routes open and clear of obstruction by undergrowth. They gathered food sources as they travelled, and fire was used to keep food-lines and favoured source areas along their travel routes productive. These fires also served to signal to others their travel through the landscape. At places where they camped along their travel route, fire was established to provide warmth, light, for cooking and other purposes, and around which to congregate.

Aboriginal groups were travelling on foot in fire prone landscapes in late spring, summer and autumn. If the broad tracts of vegetation along their travel routes went without fire for extended periods of time, such that fuels on the ground and in the understorey accumulated, then groups could be exposed to potentially life-threatening risks in the event of fire moving toward their location. For obvious self-protection reasons, in late spring, summer and early autumn, Aboriginal people strongly preferred travelling through recently burnt country. They thus burnt country through which they regularly travelled to maintain safe conditions along their travel routes.

Therefore, along travelling routes fire was used for a much wider range of purposes than just the 'campfire'. Unbounded burning was practiced for a variety of reasons along travelling routes and around favoured campsites. These fires spread unrestricted until they burnt out in areas where moisture was too high or fuel too sparse, or weather intervened.

In the open grasslands and grassy woodland dominated areas of the alpine and sub-alpine plateaus, Aboriginal people did not live on bogong moths alone. They gathered other food (and medicine) sources including plant tubers and leaves, seeds and berries (Daisy Yams being a noted food source, supplemented by the rhizomes, corms, bulbs and tubers of other alpine/sub-alpine plants). The locating and harvesting of such foods was made easier where source food plants could be easily seen and were in a productive (not dormant) life stage. Aboriginal people used fire to promote the growth of food-line plants and to maintain such plants in a condition that they were easy to find (not crowded over by other vegetation) and in their favoured condition (eg. fresh palatable leaves, healthy vigorous tubers). Aboriginal use of fire has been linked to the gathering of Daisy Yams by Gott (1982, p. 64) "Aboriginal firing, which kept the lightly timbered areas free of understorey, allowed light to penetrate and would have promoted its growth".

Food gathering occurred during daylight throughout the areas where groups gathered and camped enroute to gathering locations. The high country plateau areas had to sustain significant populations at times when gathering activities were occurring, and

therefore food gathering efforts were not limited to the immediate surrounds of camp-sites and gathering sites. Food gathering occurred across the alpine and sub-alpine and montane zones.

Sources of fire were also used in association with bogong moth harvesting. Helms (1890; 1895) indicates that flaming bark brands were used to quickly collect moths from aestivation sites. Flood's accounts (1980) indicate that moths were 'lightly roasted' over a fire before rounded river pebbles were used to grind them up to form 'cakes'.

In summary, Traditional Owners indicate that their use of fire in the high country was not limited to 'domestic' campfire purposes. They used fire more broadly during their travels to the high country to keep travel routes safer and clear of obstruction by undergrowth, and to facilitate gathering and hunting of their favoured food sources along the way. In the alpine and sub-alpine zone they used fire across food gathering areas to promote the growth and vigour of favoured vegetative food sources which they consumed as part of a diet which was broader than just bogong moths.

Extent and frequency of Aboriginal fire use in high country landscapes

It is not possible to establish quantitatively how much of the high country landscape was burnt, and how often, by Aboriginal people prior to European settlement.

However, based on the knowledge that Aboriginal people used fire as part of their daily activities, and used it for a wide range of purposes including for life-sustaining reasons such as protecting themselves and maintaining food-lines, it is reasonable to deduce from these facts that fire was used frequently while travelling to and within the high country. Traditional Owners state that fire was a part of their everyday activities and was fundamental to their relationship with the land and their own health and wellbeing.

In terms of the extent of fire use, the significant number of Traditional Owner groups gathering in the high country from late spring to early autumn, for annual bogong moth feasting and other gatherings, and the diversity of travel routes the different groups took to travel up into the high country suggests that Aboriginal fire use would have been at least as widely distributed as their travel routes and food gathering areas.

Once in the high country, the fact that Aboriginal people had a diet wider than bogong moths alone, and as hunter-gatherers they sought to maximise the availability of their food-lines in the landscape, then it is reasonable to assume that fire use in the alpine and sub-alpine areas was significantly more widespread than just their campfires. Traditional owners state that they used fire in the high country landscape to facilitate the gathering of vegetative and non-vegetative food sources, and to maintain their food-lines for future seasons. They gathered foods for subsistence and trade, as they were available, wherever they went.

Literature cited

Although a literature review was not part of this work, some references to which were raised by Traditional Owners have been identified, however these were not all available for review.

A model of Traditional Owner fire use in the Australian Alps

See next page.

Conceptual model of high country Traditional Owner fire use

Land-based basic survival needs

General needs

Land produces sufficient variety and abundance of locally available food to sustain population

Water quality in rivers provides good drinking water and favourable habitat for aquatic food sources

Permanent/transient camp areas and their inhabitants (Traditional Owners) are not burnt out/killed by fires

Game animal habitat and vegetative food sources are not burnt out across large landscape areas causing widespread food availability crises

Travel routes are safe and clear to walk

Land is maintained in a 'healthy' condition maintaining the wellbeing of 'country' and its people

Traditional Owner Fire Use

Use fire across food gathering areas to optimise the availability and abundance of favoured food sources (ideally promoting a range of different foods and a continuous food supply)

Use low intensity fire in catchments to mitigate against high intensity/impact fires which cause severe water quality and aquatic habitat degradation

Where necessary, use fire around permanent and transient camp areas to eliminate the possibility of a high intensity fire in the camp area

Use fire to maintain a mosaic of game animal habitats and growth stages and mitigate against the occurrence of widespread high intensity fire that kills large numbers of game animals and homogenises habitat and food source growth stages

Use fire to reduce fuels (for travelling group protection) in areas aligned with travel routes

Use fire to minimise high-impact fire extremes (size and severity) so the condition of country is not degraded over broad areas and thus the wellbeing of people is not adversely impacted

Traditional Owner fire use – Landscape effects

Grasslands:

Areas regularly or cyclically used for hunting and gathering food sources, or as travelling routes, are maintained in a more frequently burnt condition, with frequency optimised to favoured food source production (young and vigorous). Fire frequency in less 'utilised' grasslands is from lightning and fires spreading from more frequently burnt areas.

Grassy woodlands:

Areas regularly or cyclically used for hunting and gathering food sources or as travelling routes are in a more frequently burnt condition, with frequency optimised to favoured food source production. Areas around permanent and transient campsites are burnt as frequently as conditions allow.

Summer wildfires burning into frequently burnt grassy woodlands spread as low intensity fires in short open clumped grass with negligible impact on overstorey trees (reduced impact on food-lines). Shrub cover is kept patchy.

Montane forests

Many montane forest areas were not burnt, particularly those with dense and/or mesic understoreys with abundant fuel but of low flammability in most years. Burning was undertaken in some grassy montane forest areas where these were food source areas or travel routes.

Aboriginal burning in more open, dryer forest/woodland types adjacent to montane forest areas served to reduce the intensity of summer wildfires reaching montane forest areas. This reduced the frequency of fires impacting montane forests, largely restricting such events to occasions when wildfires penetrated from adjacent woodlands in severe drought years in under the influence of severe fire weather.

Woodlands and dry forests with mixed grass/shrub understorey:

Areas regularly or cyclically used for hunting and gathering food sources, or as travelling routes, are maintained in a more frequently burnt condition, with frequency optimised to favoured food source production. Fire frequency in less 'utilised' woodlands is from lightning and fires spreading from more frequently burnt areas.

OVERALL LANDSCAPE EFFECT

Frequently used low intensity fire applied by Aboriginal people (and also arising from lightning) in grasslands, grassy woodlands and those open woodland/forest areas they frequented to gather and hunt food, and to travel through, created a mosaic of reduced fuel areas in the landscape which served to restrict the spread and intensity of summer fires burning in adverse weather. These Aboriginal groups that lived in, hunted and gathered food within, and travelled through the areas they frequently burnt were afforded a significant degree protection from summer wildfires, as were the food-lines they accessed from the areas they managed with the 'firestick'.

Notes: Extent and frequency of Traditional Owner burning in the Australian Alps

It is not possible to establish quantitatively how much of the high country landscape was burnt, and how often, by Aboriginal people prior to European settlement. However, we know that Aboriginal people made extensive use of, and travels through, the high country (historical accounts of very large high country gatherings (500+), the existence of ceremonial sites and stone artefacts provide evidence). Traditional Owners state that fire was a part of their everyday activities (including for life-sustaining reasons such as protecting themselves during travels and at campsites, and for maintaining the availability of food-lines) and was fundamental to their relationship with the land and their own health and wellbeing – they did not change their culture when they got to the high country.

In terms of the extent of fire use, the significant number of tribal groups gathering in the high country from late spring to early autumn, for annual bogong moth feasting and other gatherings, and the diversity of travel routes the different groups took to travel up into the high country suggests that Aboriginal fire use would have been at least as widely distributed as their travel routes.

Once in the high country, the fact that Aboriginal people had a diet wider than bogong moths alone, and as hunter-gatherers they sought to maximise the availability of their food-lines in the landscape, then it is reasonable to assume that fire use in the alpine and sub-alpine areas was significantly more widespread than just their campfires. Traditional owners state that they used fire in the high country landscape to facilitate the gathering of vegetative and non-vegetative food sources, and to maintain their food-lines for future seasons. They gathered foods for subsistence and trade, as they were available, wherever they went.