

A REQUEST FOR A PAUSE & REVIEW OF PLANNED FIRES, CAPE LIPTRAP COASTAL PARK



An isolated group of 50 lyrebirds reduce fuel loads in sheltered damp forests on Waratah Bay

RESEARCH REQUIRED BEFORE ANY PLANNED BURNS

1. Indigenous cultural assessment of identified sites; shield, scar, burial trees and stone circles etc.
2. Quantify the role of 50 or more lyrebirds, surveyed with Alex Maisey and the Friends of Sherbrooke, in fuel reduction of up to 1000t per annum in this 850 hectare of the park and the impact of fire.
3. Comparison of varied vegetation types and fire history to gauge impact of burning on fuel loads.
4. Address misidentification of messmate as 'stringybarks' whose bark is prone to 'spotting' as identified by Dr David Cheal – see note attached
5. Locate 12+ endangered plant species in DEPI database not identified in DEPI 'desktop' study.
6. Locate Tiger Quoll listed as occurring in 1982 and as reported as road kill, Walkerville North in 2003.
7. Assess design of fire breaks that increase windspeed, access for feral animals and flammable weeds.
8. Update incomplete fire history incorporating 1942 aerial photos of forests not burned in '39 fires.

Locals have resourced and are seeking funding and resources for the following projects:

13. Establishing annual Lyrebird Survey with assistance from Alex Maisey and Friends of Sherbrooke
14. Raising funds for a Gunaikurnai linguist and cultural expert to evaluate this area of the Park.
15. Hosted six botanists who have undertaken 12 days surveying park and seeking further botanical surveys to locate threatened species listed on data bases and rainforest species.
16. Organised two botanists whose reports identify low fire risk likely increased by burning
17. Established ongoing insect surveys identifying over 90 species, two oecophorids new to science, and develop a role for local people photographing insects and ongoing monitoring.
18. Trained two local women to collect 3600 wildlife camera nights for lyrebird & small mammal survey.
19. Communicated research to locals, CFAs, residents and visitors with colour brochures.
20. Established a website www.eclecticparrot.com.au and linked facebook site and two short films.
21. Corresponded with fire managers with over 100 letters over 18 months.
22. Gained Pro Bono assistance to establish a Research Trust with a Melbourne based Law Firm.

RESEARCH ASSOCIATES: Dr Marianne Horak and Dr Ted Edwards: CSIRO Entomology; Professor Dan Ramp: Zoology, University of Technology Sydney; Professor Tim New: Entomology Latrobe University (to get two PHD students to study oecophorid moths (fuel reducing caterpillars) and termites); Alex Maisey: Sherbrooke Lyrebird Study Group: Ongoing Lyrebird Count; Ken Harris: Field Naturalist Club: Ongoing Insect Survey; Future formal Botanical Survey: Darcy Duggan, Damian Cook and Gidja Walker.

ENHANCING COMMUNITY FIRE SAFETY AND RAISING FUNDING

Risk assessment was looked at with local CFA. DEPI identified threat as grass fires north from Tarwin Road. There have been two deliberately lit fires in 2015 that have been extinguished quickly with CFA membership promoted as part of project. A fire tower near Mount Liptrap with cameras will provide surveillance of all northern farmland for the brief fire season to detect and respond to fires. A similar tower at Yanakie will cover coastal areas, Waratah and the Yanakie Peninsula. Accessible viewing areas built into each tower will generate income from gold coin donation for the local CFA's, wildlife carers, research and tourism.

Community Engagement and Fund Raising to Date

- Research and report history of fires and fire management – 10 people 1600 hours -\$30,000 funding raised
- Establish Website - 3 people, 60 hours contribution
- Facebook - 4 people, 60 hours contribution
- Short films -4 people, 40 hours contribution
- Photography and layout, printing & distribution of brochure - 8 people, 120 hours contribution \$600 raised
- Government meetings - 3 people, 40 hours contribution
- Letter Writing - 12 people, 300 hours contribution
- Photographic record - 4 people, 200 hours contribution \$200 raised
- Hosted site visits - 8 people, 40 visitor nights holiday rental homes contribution.
- Mammal Survey - 6 people, 600 hours plus 8 cameras contribution Sydney University Technology
- Botanical Survey - 6 people, including 3 overseas botanists – 300 hours contribution
- Insect Survey - 2 nights, 12 different people, 8 locals – 150 hours contribution
- Lyrebird Survey set-up - 9 people, 40 hours - contribution
- Community Lyrebird Talk, Alex Maisey – 23 people 30 hours (organisation and attendance)
- The Sherbrooke Lyrebird Study Group made a weekend trip - 38 volunteered two mornings to count lyrebirds at dawn – 22 different locals, 6 friends of Sherbrooke, 160 hours including organisation.
- Aboriginal Cultural Survey – research, two site visits 2 people 30 hours - contribution \$400 raised to date.

See Reports Attached;

Assistant Professor (Botany) David Cheal
Botanist Darcy Duggan
Botanist Damian Cook

Re: Distinguishing the Messmate from Stringybark Eucalypts

Sunday 14th December 2014

Eucalyptus obliqua is the type species of the genus *Eucalyptus* (meaning that it was the first described species in that whole genus). As such it is Genus *Eucalyptus* Subgenus *Eucalyptus* Section *Eucalyptus* Series *Eucalyptus* Species *obliqua*. Other species in the same series include Alpine Ash (*Eucalyptus delegatensis*), Blue Mountains Ash (*Eucalyptus oreades*), Snow Gum (*Eucalyptus pauciflora*) and a few other close relatives. It is not closely related to other eucalypts that are called stringybarks, which are mostly within Series *Pachyphloiae*. *Pachyphloiae* includes such familiar trees as Red Stringybark (*E. macrorhyncha*), Brown Stringybark (*E. baxteri*) and White Stringybark (*E. globoidea*). The bark type of *E. obliqua* superficially looks similar to the real stringybarks, so I can understand why Mike Timpano considered that *E. obliqua* was a stringybark. *E. obliqua* is often included within the stringybark group in field guides (such as Costermans).

However, the similarity of *E. obliqua* bark to the bark of the true stringybarks (Series *Pachyphloiae*) is superficial. When examined a little more closely it becomes apparent that the long dry fibres, so characteristic of the true stringybarks, do not occur on the trunks of *E. obliqua*. Instead, the bark of *E. obliqua* is more spongy and determinedly water retentive, and hence *E. obliqua* bark is less flammable than the bark of the true stringybarks.

I hope these comments help.

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Issues relating to the proposed burn in Cape Liptrap Coastal Park

Darcy Duggan
Principal Ecologist
Bushland Management Services

To Whom it May Concern

In early May 2014 I was invited by local residents to examine an area of remnant bushland within the Cape Liptrap Coastal park between Waratah Bay and Walkerville, to assess the likely ecological impacts of a proposed prescribed burn.

The vegetation within the proposed area comprises a mosaic of several Ecological Vegetation Classes [EVC's] reflecting variations in soils, slope and aspect. Of particular note is the mature age class and successional changes evident throughout the site due to the general absence of fire for some 85+ years. Coastal vegetation of this age class is now considered rare within the state [G.W.Carr pers com] and is effectively the last area left in South Gippsland, following the large scale fires within Wilsons Promontory National Park.

This area now provides an important reference against which other remnant patches with different fire regimes can be compared. This factor is significant from a scientific perspective in understanding ecological and successional processes within these EVC's and monitoring impacts of prescribed burning on flora and faunal values.

The overall condition of the vegetation is considered excellent with good variability in structure and mixed age class including mature [habitat] trees within the Forest and Woodland EVC's. Weeds were generally limited to road-sides and minor patches along path edges but otherwise low impact. The exception was a number of new emergent weeds [e.g Cape Ivy, Panic Veldt-grass] invading into the wet forest/rainforest slopes and gullies at the rear of the Walkerville Camping ground.

Areas of Damp Heathy Woodland and Wet Heathland located on the upper slopes are considered to be of particular significance due to:

1. Diverse structure and species diversity of heathland vegetation reflecting the various successional changes in the absence of fire. Evidence of senescent shrubs is very low.
2. High number and diversity of small birds and mammals including several threatened species notably the Emu Wren and Long-nosed Bandicoot.
3. The hydrological function these areas play in supporting extensive perched wetlands and springs within a saturated deep peat soil [major carbon store].

It is highly likely the hydrological role of these EVC's are essential to the protection of Damp/Wet/Rainforest remnants found along the lower slopes and drainage lines that feed into the coastal fringe.

A notable feature of areas of both Lowland and Damp Forest at the site was the locally dominant shrub Tasmanian Broom Heath [*Monotoca glauca*]. This species is listed as rare within the state and considered fire sensitive. It was clearly evident onsite that this species appears to suppress the growth of more flammable species such as bracken and has very low ground litter loads. Little is known regarding its role in suppressing bracken and reduced accumulation of litter and requires further research.

The presence of Lyrebirds within the forest areas is also considered important as this species plays a vital role in reducing fuel loads through their foraging behaviour. This population is of particular significance as it is now isolated due to fragmentation and loss of corridor links to other communities.

There are a number of aspects of the proposed burn which would appear to be in conflict with one of the 2 key objectives for planned burns as stated within the Code of Practice for Bushfire Management on Public land. This states clearly that a key objective is to "To maintain or improve the resilience of natural ecosystems and their ability to deliver services such as biodiversity, water,

carbon storage and forest products”.

1. What pre flora and fauna assessment have been undertaken to identify existing biodiversity values?
2. Has a risk impact assessment been done for the threatened species present eg Tasmanian Broom Heath, Long-nosed Bandicoot?
3. DEPI documents indicate the key rationale underlying the proposed burn for the Wet Heathland to be based on a model to determine the various successional stages that should be present in an ideal EVC of this type. This model does not fit observed features onsite. How does this allow for successional changes beyond this EVC in the absence of fire which is clearly evident onsite?
4. What hydrological assessment has been done to determine the function of wet heathland in protecting stream flows and stabilizing the upper slopes?
5. What impact is the proposed burn likely to have on the underlying peaty soils and potential changes in hydrology and loss of carbon store?
6. I have been advised that an accelerant will be dropped from a helicopter onto the site to ignite the fire. What is the accelerant to be used and is there likely to be any toxic residue left onsite resulting from its use?
7. What followup control works are proposed to prevent rabbit damage and destruction of native vegetation recruitment [notably orchid and herbaceous species] as occurred post fire in Wilsons Promontory NP?
8. Similarly, will feral fox control works be undertaken to prevent predation of threatened species such as the Long-nosed Bandicoot?

On the basis of existing documentation, there would appear to be little justification for the proposed burn, especially given the many unanswered issues that should be dealt with in the pre planning stage in accordance with the various protocols and codes of practice.

It would be prudent therefore to defer any further burning of this area to allow a proper detailed assessment of the current vegetation and fauna values, to better understand the role of fire in long unburnt communities present onsite. The site is a perfect reference area to allow this process and has the potential to engage the broader community in these issues.

I await your reply regarding the various questions raised.

Darcy Duggan

Observations of vegetation at Walkerville

Damien Cook
Principal Ecologist
Rakali Ecological Consulting

On Tuesday the 1st of April 2014 native vegetation between Waratah Bay and Walkerville South (Cape Liptrap Coastal Park) was inspected at the request of local residents to assess the likely ecological consequences of proposed prescribed burning. Much of the vegetation in this area has remained unburnt for almost 88 years.

Ecological Vegetation Classes occurring in this patch of native vegetation include Damp Forest, Lowland Forest, Damp Heathy Woodland, Sand Heathland, Wet Heathland, Coast Banksia Woodland and Swamp Scrub. The native vegetation observed during this inspection was regarded to be in good ecological condition. Weed cover and diversity was generally very low and confined to disturbed sites along roads and tracks and around camping areas. There were a diversity of age classes among woody species, including the dominant eucalypts, and the expected diversity of indigenous plants was observed at each of the EVCs inspected given the time of year.

Long unburnt native vegetation, such as that found at Walkerville, is rare within the landscape of South Gippsland, and provides an important reference against which other remnant patches with different fire regimes can be compared.



Mature Heathland at Walkerville

It is likely that the structure and floristic composition of mature heathland (pictured above) provides resources and habitat for a diversity of native flora and fauna that are absent or less abundant in earlier successional stages of this vegetation type. Given that there are many examples of early post-fire succession heathland remnants in the area (some of which cover extensive areas including parts of the Wilsons Promontory National Park) it is desirable for ecological reasons to retain the remnant vegetation at Cape Liptrap Coastal Park in its long unburnt state.

Damp Forest in this area supports wet forest/rainforest elements including Muttonwood (*Myrsine howittiana*), Twinning Silkpods (*Parsonsia brownii*) and Tasmanian Broom Heath (*Monotoca*

glauca), which is listed as rare in Victoria. The consequences of burning this vegetation type will include allowing more solar radiation and wind to penetrate to the ground level, drying it out and making less suitable for these species. Observation suggests repeated fires tend to lead to a dominance of bracken and therefore an increase in fire risk; further research is required on the dynamics of fire regimes, vegetation flammability and fuel loads.

Tasmanian Broom Heath (*Monotoca glauca*) is a locally dominant shrub in both Lowland and Damp Forest at the site. This species appears to suppress the growth of more flammable species such as bracken and has very low ground litter loads. This is a significant fire sensitive tree within this area and its role in suppressing bracken and reduced accumulation of litter requires further research.



The growth of Bracken (*Pteridium esculentum*) is suppressed under mature Tasmanian Broom Heath (*Monotoca glauca*).