

Submission
No 112

**INQUIRY INTO PROPOSED AERIAL SHOOTING OF
BRUMBIES IN KOSCIUSZKO NATIONAL PARK**

Name: Mrs Nikki Alberts

Date Received: 12 October 2023

Submission to the Inquiry into the proposed aerial shooting of brumbies in Kosciuszko National Park – Nikki Alberts, White Alpine Equine

My name is Nikki Alberts, and I am a Director of White Alpine Equine, a brumby rehoming group based in Adaminaby in the NSW Snowy Monaro.

Since commencement in 2019, we have successfully rehomed 53 brumbies, with transport and assistance provided to save many more.

I wish to address the terms of reference for the Animal Welfare Committee Inquiry into the proposed aerial shooting of brumbies in the Kosciuszko National Park and surrounding areas as per the below:

- *the methodology used to survey and estimate the brumby population in Kosciuszko National Park*

The current methodology used to count wild horses in Kosciuszko National Park is flawed. It relies heavily on aerial surveys, which can be inaccurate and may not provide a comprehensive picture of the horse population. These surveys can miss horses in dense vegetation or steep terrain, leading to an underestimation or overestimation of the population.

A more holistic approach that combines various methods, such as ground surveys and camera traps, might provide a more accurate and less invasive way to monitor the wild horse population while respecting their natural habitat.

An alternative method was proposed to Minister Sharpe by Claire Galea, Joanne Canning and Dr David Berman but has not yet been adopted.

- *the justification for proposed aerial shooting, giving consideration to urgency and the accuracy of the estimated brumby population in Kosciuszko National Park*

The proposed aerial shooting is based on the premise of inflated numbers of brumbies in the Park. Aerial culling of mass numbers of horse, leaving their carcasses in the Park to rot could have several negative impacts on the park's ecosystem and potentially pose a threat to endangered species:

- **Spread of Disease:** Rotting carcasses can serve as breeding grounds for disease vectors like flies and scavengers such as dingoes and foxes. This can increase the risk of diseases spreading among wildlife, including endangered species, which may not have robust immune systems to combat new diseases.
- **Altered Ecosystem Dynamics:** Carcasses can disrupt the natural decomposition cycle in the park. They can attract scavengers that may not be part of the park's native food web, potentially leading to imbalances in predator-prey relationships and competition for resources.
- **Habitat Alteration:** As scavengers feed on carcasses, they can alter their behaviour and movement patterns. This could result in changes to the habitats of endangered species, affecting their nesting or foraging areas.

- **Increased Predator Activity:** The presence of scavengers attracted to carcasses can increase predator activity in the park. This could pose a direct threat to smaller, vulnerable species, especially those already at risk.
- **Nutrient Cycling:** While decomposition is a natural process that contributes to nutrient cycling, excessive carcass build-up can lead to nutrient imbalances in the ecosystem. This can affect vegetation and, subsequently, herbivores that rely on specific plant species for food.

In summary, leaving horse carcasses to rot in Kosciuszko National Park could disrupt the park's delicate ecosystem and pose threats to endangered species. Proper management and removal of carcasses are essential to minimize these potential impacts and maintain the ecological balance within the park.

- *status of, and threats to, endangered species in Kosciuszko National Park*

At the recent Senate Committee Hearing on the management of wild horses in the KNP, those supporting a cull were asked to present a map of brumby presence aligned with a map of the location of endangered species. They took the request on notice but were unable to produce a map that showed definitively where overlaps occurred. Please see **below** for these locations and where there is NO overlap of brumby presence.

Data and research provided by Karren Summers

Threatened Species ear-marked for extinction - the Australian Sub-alpine Brumby

This species occurs as sub-populations across the Great Dividing Range in south-eastern Australia. The only true alpine population existed on the Bogong High Plains in Victoria but was reduced to less than 95% by Parks Victoria during 2022. This entire sub-variant comprised less than 60 individuals before it was targeted for elimination by contract shooters.

The northern Kosciuszko National Park has the highest sub-population with currently about 600 brumbies remaining. This population is also under serious threat with the Australian government planning to use aerial shooting to remove the brumbies from this area. In addition, a heavy trapping program has been in force since 2019 which has removed a large proportion of the brumbies from this area.

The genetic make-up of the Snowy Mountain brumbies has developed over 200 years as a perfect example of hybrid vigour & natural selection. It is a perfect example of 'survival of the fittest' as it has become conditioned to the harsh climatic conditions of the Australian alpine winters over time. These horses are reportedly unique in hardiness, temperament & stamina. They have become a distinctive icon used to symbolise Australian culture, heritage & 'way of life'.

According to several dictionary definitions, these brumbies are classified as truly 'wild' as per the criteria:

- living or growing in natural conditions
- are not looked after by people
- living in a state of nature & are not ordinarily tame or domesticated

Although afforded some protection & heritage status with legislation in 2018, the species has been targeted for complete removal by some government funded groups & organisations.

The genetic viability of this species, & therefore its existence is under serious threat of extinction unless their population numbers can be maintained at its current state. A truly Australian 'product' that deserves to be preserved.

Threatened species – 'flagship'

It is common strategy in conservation science to use what is known as a 'flagship' species. A charismatic species, like the very cute Mountain Pygmy Possum, are used to attract public attention to an issue. Is this the reason the Invasive Species Council (ISC) is using this possum species for the demise of the brumbies! It is blatant propaganda at its best.

This strategy has been used to gain public awareness for many critically endangered species across the world & is a valuable tool but can also be a determining factor for the decline of others, as in this case!

Unless the Bogong Moth is saved, the Mountain Pygmy Possum is under serious threat. This has nothing to do with brumbies at all but for the ISC to use a species that has a critical status as a flagship species for their funding/grants purpose!



Cute, aren't I

This tiny possum is restricted to boulder field habitat at elevations > 1500m (KNP).

Mountain pygmy possums prefer to feed on Bogong moths which make up about a third of their diet. This moth species (*Agrotis infusa*) migrates to the high alpine mountainous regions during the spring and summer months. During these months, mountain pygmy possums utilise Bogong moths as their principal food source. In the autumn months, Bogong moths depart from the mountain ranges and mountain pygmy possums must supplement their diets with fruits and seeds.

The preferred habitat of these pygmy possums is within deep boulder fields in alpine regions. The biggest threats to the mountain pygmy possum populations include habitat destruction and fragmentation, climate change, predation by feral cats and red foxes, and threats to their prime food source, the bogong moth.

The construction of ski resorts in the alpine regions in which the mountain pygmy possums inhabit has been one of the greatest factors attributed to population decline.

Climate change is another serious threat to the mountain pygmy possum. *Burramys parvus* is the only Australian mammal which is completely restricted to the alpine regions. The species is well adapted to the seasonal availability of Bogong moths and other food resources. Although data from New South Wales and Victoria are still pending, preliminary models suggest that reduced survival of mountain pygmy possums can be related to declining snow cover and shorter winters.

Studies conducted at Kosciuszko National Park revealed that the period of snow cover was diminished by an average of 10 days and snow melt occurred approximately 15 days earlier. Linda Broome and her group of researchers determined that, while hibernation sites appeared well insulated despite lack of snow, snow cover provides additional protection to the mountain pygmy possums during the coldest months. This added layer of insulation is believed to promote prolonged torpor and decrease waking intervals which can deplete energy stores and decrease possum survival.

A third negative impact on the mountain pygmy possum population is high levels of predation by red foxes (*Vulpes vulpes*) and feral cats.

Research has also extended to identify the threats impacting the survival of the Bogong moth. This moth species is the preferred food source of mountain pygmy possums. Their arrival during the spring months acts as a seasonal indicator signalling the end of hibernation for the possums. In addition, Bogong moths are rich in protein and fat and they provide mountain pygmy possums with the necessary energy reserves to sustain the seven-month hibernation period.

Scientists observed a catastrophic drop in bogong moth numbers in the summer of 2018–2019, due to climate-change-induced droughts in the moth's breeding areas. With the lack of moths as a food source during the breeding season in the spring of 2018, the possums lost litters owing to inadequate nourishment. As a similar situation occurred in the spring of 2017, adult possum numbers were predicted to decline as well.

In the spring and summer seasons of 2017–18 and 2018–19, dramatic drops in numbers of the moths in the Alpine caves were observed. Millions of the moths typically line the walls of these caves over summer, but in 2017-2018, some had none. Eric Warrant of Lund University attributed the falling numbers to winter drought in their breeding areas and climate change, the lack of rain producing insufficient vegetation to feed the caterpillars.

The possum is limited to high elevations, boulder field habitat & is dependent on the declining migration of the Bogong Moth.

None of this is applicable to brumbies or the habitats where they occur.



Possum Habitat – not Brumby

Threatened species & Brumbies - Kelton Leek Orchid

This orchid species is listed as critically endangered due to its small population size of ~400 plants (it is assessed as a naturally rare species). The whole population exists on less than 1 hectare at McPherson's Plain, outside of any conservation area including KNP. It primarily occurs on Forestry land.

The list of threats in order of significance include:

- logging
- changes in drainage patterns due to dam water storage
- rooting by pigs
- slashing of vegetation for fire control
- competition from weeds
- grazing from stray livestock
- environmental and demographic stochasticity due to its small population size

This species does NOT occur in the national park & therefore cannot be included under the list of threatened species reported to be negatively impacted by brumbies within the Park.

Threatened species & Brumbies - Smoky Mouse

This is another species claimed to be under threat from brumbies in KNP. However, another search of the scientific literature has come up with nothing, specifically naming feral horses as a threatening process.

The species is critically endangered across its range which includes the ACT, Victoria & NSW. The Smoky Mouse is a bit larger than the common European Mouse & may resemble the domestic rat.

There were serious concerns for its continued existence after the Black Summer bushfires but it has been reported to have survived, with evidence of its presence being found within its range in KNP.

The listed threats, as per the Threatened Species Scientific Committee conservation advice under the Environment Protection & Biodiversity Conservation Act 1999, are as follows:

Threat factor - Invasive species

- predation by cats
- predation by foxes

Threat factor - Habitat loss & degradation

- vegetation clearance/habitat fragmentation
- habitat loss caused by cinnamon fungus (*Phytophthora cinnamomi*)
- fire
- increased fire frequency/intensity due to climate change

Of particular note, under habitat clearance, is the specific concern for the species from Snowy Hydro 2.0 development.

During early construction of the Tantangara TBM site, there were news reports that the workers quarters at the site were 'infested with rodents'. On closer inspection of this problem revealed that it was [quote] "too hard to distinguish between protected native species & introduced vermin".

Also, evidence of the Smoky Mouse was found at several sites during the planning/surveying for the Marica SH2.0 project. But although the species was highlighted in this area, works continued regardless.

From an extensive search of the literature no evidence or reports pertaining to the threatening process of wild horses exists.

Menkhorst, P. and Broome, L. 2008. Background and Implementation Information for the Smoky Mouse *Pseudomys fumeus* National Recovery Plan. Department of Sustainability and Environment, Melbourne.

Threatened species & Brumbies – Corroboree Frog

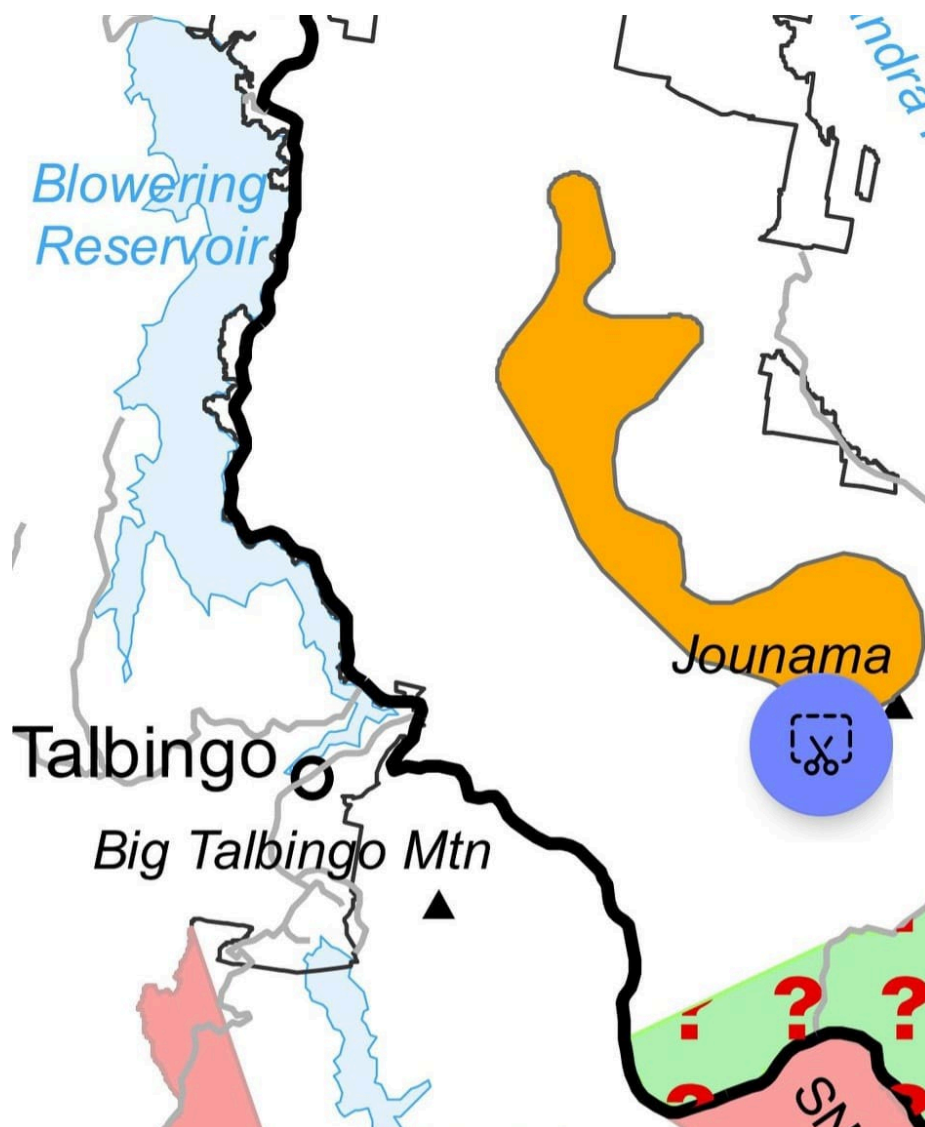
The Invasive Species Council (via the subsidiary group Reclaim Kosci) have pinned the blame of declining Corroboree Frog populations on brumbies.

There are 2 sub species of this frog, the southern that occurs in several isolated small populations across the Main Range & the Jagumba/Jagungal Wilderness area in KNP, & the northern which occurs in 2 groups - one across the Bogong Peaks Wilderness & the other between the Goobarragandra & Bramina Wilderness areas.

The first one mentioned which is the largest, occurs outside of known horse habitat (as shown on map). The second group occurs in very marginal horse habitat along the far northern boundary of the Park.

The primary cause for the decline of this species is the chytridiomycosis disease that has decimated frog populations across the world. In this case, it has been found to be spread by the native Eastern froglet species.

The southern Corroboree Frog is completely outside of any horse populated areas. The larger of the northern species group was potentially impacted by fire during the Black Summer fires.



Map of the area of Northern Corroboree Frog in relation to NPWS mapped wild horse areas

Threatened species & Brumbies – Guthega Skink

The Guthega Skink is endemic to NSW and Victoria, where it is restricted to the sub-alpine and alpine zones (> 1,500 m a.s.l.).

In NSW, the Guthega Skink has only been observed within Kosciuszko National Park extending from Ramshead Range in the south to Schlinks Pass in the north (NSW Wildlife Atlas 2016; Z. Atkins, unpublished data).

Areas preferred are usually associated with a substrate of granite boulders or sub-surface boulders hidden beneath decomposing granite soils or thick vegetation (Donnellan et al. 2002; Green and Osborne 2012). This species constructs burrows in the soft soils beneath shrubs, rocks and logs (Green and Osborne 2012). Soil and snow cover provide important insulation from the winter cold (Donnellan et al. 2002).

As a result of its narrow altitudinal range and specific habitat requirements, the Guthega Skink has a limited capacity for dispersal (Atkins et al. 2015; Chapple 2003).

Most sites occupied by the Guthega Skink are separated by distances that are thought to be beyond the dispersal ability of the species (> 300 m). In addition, the Guthega Skink's distribution in NSW is fragmented by alpine resort buildings and/or groomed ski slopes, roads and tracks. Hence, populations of the Guthega Skink are considered to be severely fragmented.

As a result of the 2003 fires, the Guthega Skink appears to have been extirpated from several locations (e.g. Smiggin Holes, Schlinks Pass). There are a number of threats to the Guthega Skink including habitat loss and degradation, weeds, wildfire, exotic predators and climate change. In the past, areas of habitat have been destroyed by the establishment and expansion of alpine resort villages and associated infrastructure (e.g. roads, tracks and ski runs).

These have also resulted in the fragmentation of habitat. In Kosciuszko NP three of the four alpine ski resorts (Thredbo, Perisher and Charlotte Pass) occur within the distribution of the species and approximately 225.2 ha of potential habitat has been disturbed (M. Schroder in litt. June 2016).

Although Guthega Skinks are known to occur within some disturbed localities (e.g. Leichhardt T-Bar), they are absent in areas from which native vegetation has been completely removed and replaced by exotic grasses, such as super-groomed slopes (Sato et al. 2014b; M. Schroder in litt. June 2016).

Continued development of alpine resorts, including the further modification of ski slopes and plans for an increase in summer-based activities such as mountain bike riding, are likely to further degrade habitat.

Climate change will potentially have a negative impact on species like the Guthega Skink which is specially adapted to a narrow high elevation range of climatic conditions, occurs in isolated and disjunct populations and depends upon specific vegetation structure (Sinervo et al. 2010). As the Guthega Skink occurs on the alpine plateau it has limited scope for uphill migration in response to increasing temperatures and changes to habitat (such as changes in vegetation) which are likely to make sites unsuitable habitat (Sato et al. 2014a; M. Schroder in litt. June 2016). 'Clearing of native vegetation' is listed as a Key Threatening Process under the Act.

Small home ranges and limited capacity for dispersal make this species more vulnerable to habitat disturbances which reduce habitat connectivity and isolate populations.

As has been said many times, the brumby does NOT occur at these localities or species range.



Distribution of the Guthega Skink in NSW occurs from the Ramshead Range in the south to Schlinks Pass in the north. This whole area occurs across the Main Range in KNP where brumbies do NOT occur.

- *the history and adequacy of New South Wales laws, policies and programs for the control of wild horse populations, including but not limited to the adequacy of the 'Aerial shooting of feral horses (HOR002) Standard Operating Procedure'*

The control of wild horse populations in New South Wales, particularly in areas like Kosciuszko National Park, has been a topic of ongoing debate and concern.

History:

- **Historical Perspective:** Brumbies have a long history in Australia, dating back to colonial times. They are considered by some as part of the country's heritage.

Laws and Policies:

- **Brumby Management Plans:** NSW has implemented Brumby Management Plans that outline strategies for managing wild horse populations in certain areas. These plans often involve a mix of methods, including trapping, mustering, and rehoming, with an emphasis on non-lethal control.
- **Heritage Status:** The debate over the heritage status of brumbies has influenced policies. Some advocate for the preservation of wild horses as part of Australia's cultural heritage, while others emphasize the need to protect native ecosystems.

Adequacy and Controversy:

- **Controversy over Aerial Culling:** One of the most contentious issues in managing wild horses is the use of aerial culling. Some argue that this method is necessary to control populations quickly, while others vehemently oppose it on ethical grounds.
- **Ecological Impact:** Concerns have been raised about the ecological impact of wild horses on native vegetation, soil erosion, and the survival of vulnerable species. These concerns drive efforts to control their numbers.
- **Public Opinion:** Public opinion varies widely on the management of wild horses, reflecting differing perspectives on heritage values, animal welfare, and ecosystem conservation.
- **Programs for Rehoming:** Efforts to rehome captured brumbies have been in place, but their adequacy depends on factors such as funding
- **Ongoing Debate:** The debate about the adequacy of NSW laws, policies, and programs for wild horse management remains ongoing, with various stakeholders advocating for different approaches.

In summary, the management of wild horse populations in NSW, particularly in ecologically sensitive areas, is a complex and contentious issue. The adequacy of laws, policies, and programs depends on a balance between heritage preservation, conservation of native ecosystems, and ethical considerations, which continues to be a source of debate and discussion in the region. Community engagement has been poor, although a recommendation from the Scientific Advisory Panel (SAP) in the final report. Engagement

appears biased towards anti-brumby groups rather than neutral parties or pro-brumby advocates.

- *the animal welfare concerns associated with aerial shooting*

The Guy Fawkes aerial culling, in 2000, appalled many people, including the RSPCA and Australian Veterinary Association. Charges were laid against National Parks after the occurrence. I would be interested in what has changed between RSPCA and AVAs view then and their support now of another aerial cull as there appears to have been no/minimal improvement in firearms or approach in this method.

The Australian Brumby Alliance undertook an extensive desktop report that I would like to submit as part of this response.

Link here: <https://australianbrumbyalliance.org.au/reviewing-the-october-2000-aerial-shooting-of-guy-fawkes-brumbies/>

- *the human safety concerns if Kosciuszko National Park is to remain open during operations*

- **Risk of Accidental Shooting:** Allowing public access during shooting operations increases the risk of accidental firearm discharge. Visitors, unaware of the ongoing operations, could inadvertently wander into areas where shooting is taking place, potentially leading to tragic accidents.
- **Misidentification:** Hunters may mistake park visitors for wild horses or other game animals, especially in low-light conditions or dense vegetation. This can result in misidentifications and potentially dangerous situations for people in the park.
- **Fear and Anxiety:** The presence of firearms and the sounds of gunfire can create fear and anxiety among park visitors, particularly those who are not familiar with hunting activities. This can negatively impact the overall park experience and deter people from visiting.
- **Communication Challenges:** Maintaining clear communication between hunters and park authorities to ensure visitor safety can be challenging. Visitors might not be aware of where hunting activities are taking place, making it difficult to implement effective safety measures.
- **Increased Strain on Park Staff:** Keeping the park open during shooting operations requires additional resources and personnel to ensure visitor safety. This can strain park management and law enforcement efforts.
- **Potential Conflict:** Differences in opinions and attitudes between hunters and non-hunters can lead to conflicts within the park, affecting the overall atmosphere and potentially causing disturbances.
- **Emergency Response Challenges:** In the event of an accident or injury, providing timely medical assistance can be challenging due to the remote locations within KNP. Keeping the park open during shooting operations may hinder emergency response efforts.

In light of these concerns, park authorities must carefully assess the risks and benefits of allowing public access during shooting operations and implement robust safety measures to mitigate potential dangers.

- *the impact of previous aerial shooting operations (such as Guy Fawkes National Park) in New South Wales*

Response as per point pertaining to the animal welfare concerns associated with aerial culling

- *the availability of alternatives to aerial shooting*

Both Guy Fawkes and New Zealand's Kaimanawa horses have rehoming and governing bodies working together to find a better, sustainable, solution.

Rehomers for the KNP brumbies are self-funded or run by donations, and proposed 'community engagement' between Parks and the community (as per the SAP recommendations) never came to fruition.

If ground shooting MUST occur, which is disputed as the numbers are challenged, then professional shooter must be engaged. The recent culling of Northern KNP horses proved that the majority were not a single or even double shot kill, but multiple wounds were some horses died due to bleeding out.

Carcass disposal at the numbers proposed is a grave concern, as per public feedback and environmental impacts from the cull.

Diverting funds that would be spent on aerial or mass ground culling to rehoming to better establish sanctuaries and employ staff, would help to provide a safe haven for many brumby families. Skilled people who would work with Parks, the local Ngarigo people, to take in and handle the horses would help to find them long time acceptable homes.

- *(i) any other related matters*

I would like to register interest in attending a hearing to provide the views and experience of a 'hands on' brumby rehome with handling and adoption process in place and working.