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Australian Academy of Science submission on the impacts and management of feral horses in the Australian Alps

The Australian Academy of Science welcomes the opportunity to comment on the Senate Environment and Communications References Committee *inquiry into impacts and management of feral horses in the Australian Alps*.

The Academy considers that to protect and preserve the unique ecosystems in the Australian Alpine Region, it is necessary to address the adverse environmental impacts of feral horses in Kosciuszko National Park. Reducing feral horse impacts is also important for meeting the Australian Government's goal of no new extinctions in Australia, as the Alpine Region is one of three bioregions in Australia supporting the highest number of Australia's most imperilled vertebrates.

The Academy submits that:

- Scientific advice should be a central component of the management of invasive species on protected land, including the Australian Alps.
- Multiple lines of evidence identify feral horse populations as a continued threat to native Australian ecosystems, flora, and fauna.
- Addressing these threats is critical to maintaining the natural values of Australia's National Parks.

Commonwealth and State Governments have a number of opportunities to alter the current trajectory by:

- Placing science at the core of national park management. The NSW Parliament should repeal the *Kosciuszko Wild Horse Heritage Act 2018*.
- Working together to acknowledge the cross-jurisdictional nature of the Australian Alpine region. The Australian Government Minister for environment and Water could lead the development of a coordinated management plan across state and territory boundaries.
- The Australian Government could also advance a regional plan for the Australian Alps along the lines of the regional planning model envisaged in the *Nature Positive Plan*.

Science, scientific advice and National Park management

Science, and scientific advice, is central to the management of national parks. Interventions or protection actions to preserve or enhance biodiversity need to be evidence based.

Most jurisdictions with coverage of the Australian Alps recognise the importance of science advice. However, in New South Wales the passage of *Kosciuszko Wild Horse Heritage Act 2018 (NSW)* has subordinated scientific advice structures to heritage values. It also established a Community Advisory Panel that was not required to have scientific expertise and was specifically empowered to override the advice of the Scientific Advisory Panel. This in effect gave priority to feral horses over native species and mountain catchments in the Kosciusko National Park, undermining the fundamental purpose of national parks to protect the natural environment from threats such as invasive species.

The Act overrode the existing, scientifically informed management plans, the *2008 Horse Management Plan* and the *2006 Kosciuszko National Park Plan of Management* for areas identified as 'horse areas'.

The Academy does not support the removal of scientific advice mechanisms from public policy. Ignoring or subordinating scientific evidence is inconsistent with the very idea of sound policy-making.

The threat of invasive species to ecological health and biodiversity

Invasive species have long been acknowledged as a threat to Australia's unique environment and natural heritage. This threat is acknowledged by the Federal Government by the listing of Novel biota and their impact on biodiversity as a Key Threatening Process under the *Environment Protection and Biodiversity Conservation Act 1999*. Several other invasive species are listed under the Act as Key Threatening Processes in their own right, with associated Threat Abatement Plans, but horses are not.

Both the Australian Capital Territory (ACT) and Victoria have implemented horse removal policies for Alpine National Parks without a federal Threat Abatement Plan. These policies are based on state and territory environment assessments, national and international obligations, and the scientific evidence base. In addition, Victoria lists *Degradation and loss of habitats caused by feral horses (Equus caballus)* as a threatening process under the *Flora and Fauna Guarantee Act 1988* (Vic).

New South Wales also lists *Habitat degradation and loss by Feral Horses* as a key threatening process under their *Biodiversity Conservation Act 2016* (NSW). However, this legislative framework was undermined by the *Kosciuszko Wild Horse Heritage Act 2018* (NSW) and the decision by the NSW government to prioritise the welfare of an invasive species over the native ecosystem.

Outside of natural hazards, the growth rate of wild horse populations is estimated at roughly 18% per year. The 2022 spring survey gave a 95% confidence estimation of 14,501 – 23,535 wild horses.¹

Significant protection needed for significant species

The Australian Alps are listed as one of 20 priority places under the *Threatened Species Action Plan*. The Australian Government is funding more than \$12 million in Priority Species grants through the Environment Restoration Fund (ERF). The area is home to 116 threatened species and habitats of mammals, reptiles, plants, birds, frogs, and invertebrates. The ERF details a community plan which applies to over 50 species across all priority areas, meaning a national approach is required for the vast majority of inhabitants.

Of the 13 million hectares of the Australian Alps, more than 573,000 hectares of the area was burnt in the 2019-2020 bushfires, 60% at a high or very high severity. The Alps is home to 58 animal species requiring management interventions. These include the Mountain Pygmy Possum (endangered), Southern Corroboree Frog (critically endangered) and the Alpine Crayfish (endangered). Of these examples, the Alpine region makes up to 71 per cent of the range of these animals, with up to 29 per cent of this burnt at very high severity during the 2019-2020 bushfire event.

Feral horse population puts additional strain on the habitats of these at-risk species. In the example of the Corroboree frog, horses severely compact pool-edge litter at the edge of habitats, harming the ability and quality of breeding sites. Horse trampling on stream and burrow edges also affected the habitat of the endangered Alpine Crayfish. The natural resilience and regeneration ability of the Alpine region is currently in a vulnerable state following the devastation of the 2019-2020 bushfires. This, coupled with the trampling by feral horses, puts the food webs of these native and endangered species, including the Mountain Pygmy Possum, at an enhanced risk.² The indirect impacts of feral horses are seen on waterways, water quality, and ultimately altering the vegetation structure. These alone eliminate populations and habitats of Broad-toothed Rats, reduce numbers of Alpine Water and Alpine She Oak Skinks and Stocky Galaxias.

Over-grazing by hard hooved animals is proven to cause damage to the plant biomass and soil stability, and the effects of feral horses is unrivalled in damage to the environment and the native fauna.³

To discuss or clarify any aspect of this submission, please contact Mr Chris Anderson, Director Science Policy at

References

1. NSW Department of Planning and Environment. Tracking the wild horse population. <https://www.environment.nsw.gov.au/topics/animals-and-plants/pest-animals-and-weeds/pest-animals/wild-horses/kosciuszko-national-park-wild-horse-management/tracking-the-wild-horse-population> (2023) [Accessed 19 April 2023].
2. Department of Climate Change, E. the E. and W. Australian alpine environment across ACT, NSW and Victoria. <https://www.dcceew.gov.au/environment/biodiversity/bushfire-recovery/regional-delivery-program/australian-alpine> (2022) [Accessed 19 April 2023].
3. Driscoll, D. A. *et al.* Impacts of feral horses in the Australian Alps and evidence-based solutions. *Ecological Management & Restoration* **20**, 63–72 (2019).