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ABA Refuting Parks Victoria's BHP Impact Study 16-Jan-18

Extracts

Our thanks also for the background information Dr. Dave Berman, Wild-life Ecology and Wild Horse behaviour expert, offered the ABA on the BHP Impact report.

The BHP impact report's conclusion *"There is unlikely to be a minimum population size for feral horses that would not lead to incremental, on-going degradation"* is based on biased, incorrect and misleading information, which we now expand upon and highlight below;

"Damage to alpine ecosystems by feral horses has been well-demonstrated in the past" (p1); Where and by who? There has been one detailed Masters study (Dyring 1990) and some enclosure work (Theile and Prober 1999; Prober and Theile, 2007; Williams et al. 2014) that we know of and **neither of these demonstrate damage**. They demonstrate impact.

Impact is not synonymous with damage, but rather with effect. In the case of Prober and Theile (2007) the effect was less plant biomass. After 6 years of enclosure from horses there was no reduction in native species, no increase in weeds, just an increase in biomass.

This is a good document for promoting (to the uninformed) the unsubstantiated belief that feral horses cause damage no matter what their density. If the damage is truly there and substantial then it should be able to be clearly measured and proved. *The whole project appears designed to ensure the preconceived "correct" result is achieved.* This is not science.

3.2 Contemporary damage – field visits (p2) - Little obvious evidence of horse hoof prints in the photos of mud and bare ground. In fact, the disturbance is *more consistent with cloven hooves* of deer rather than horse hooves.

Study site selection - By surveying sites where you think horses are, and not looking where you think horses are not, you are biasing the results. This simply may confirm that horses are where you thought they were.

Wet Areas - "The preference shown by feral horses for wet areas..." (p9) What makes you think this? Have you compared wet and dry areas? Horses need to drink so will walk to creeks or water-holes to drink but they generally dislike and *will avoid soft muddy areas*. That is unless that is where the only suitable food or water is.

And Dyring (1990) suggested that horses avoid the softer ground stating that “they tended to avoid tracking the soft *Sphagnum*, probably because of the inability of this vegetation to support their weight” (Dyring, 1990 pg 116).

Dung

“Dung deposition was common” (p15) - A scientific report should be able to quantify this better. How common? How many deposits per square km? What proportion of the land is covered by dung? What proportion of the vegetation is near dung? In Argentina where there was an incredibly high density of horses (approximately 32 per square km) and there was still 97.5% of the area not covered by dung.

“The amount of dung across the plains is expected to increase several-fold over the coming years if horse numbers remain at the current level, because dung takes around five years to decompose under alpine conditions (Meagher 2004)” (p25). Check the reference and you will find that Meagher 2004’s study was on **cattle droppings** in Pretty Valley, Bogong High Plains. Horse dung in the Alps area decomposed in a quarter of the time, averaging just over 1 year. See below:

- Zabeck (2015) found dung disappeared at a rate of 444 (± 150.7 SD) days in the Toolara forest.
- Linklater (2001) found the average rate (± SE) in alpine conditions was slightly less at **424 ± 34** days in his study on New Zealand’s Alpine Kaimanawa Heritage Horses.

“with 18 discrete piles of dung counted along a single 50 m” (p15). In reality **more than 98%** of the area **has no impact from horse dung** when comparing the report viewed an area of 2000 sq. m, with the average area covered by a dung deposit [$18 \times 2 = 36 \times 100 = 1.8$ rounded to 2%] that is less than 2 square metres which is **under 2% of the area.**



Australian Alps national parks -
February 7, 2017 · Keith Primrose
on Bogong High Plains deer wallow

<https://www.facebook.com/australianalpsnationalparks/photos/a.236737706737526.1073741828.232547660489864/253749725036324/?type=3> Participants at the alpine ecology course visiting a Sambar deer wallow near Mount Nelse on the **Bogong High Plains**. A small upland wetland turned to mud and the beginnings of a gully. Sambar are a big problem up here.

“General trampling was observed over a large area along with pulling of vegetation (Figures 26 & 27), including pulling of *Poa* in grasslands, and *Empodisma* and *Astelia* in EPBC-listed alpine bogs” (p20): Over a large area... this could be measured and reported as an area in square km. How can you tell the “pulled vegetation” is not insect damage? *Such damage is or at least used to be commonly caused by insects* (Carr, 1959 #213). Also, sambar deer love the tasty end part of Flax and tend to pull the flax out and only chew the white part on the end. <http://www.sambardeer.co.nz/nature.html>

Increased stream bank disturbance from ungulates without distinct hoof prints (p21): *How do you conclude it was ungulates without distinct hoof prints? With this complete lack of clear evidence how can you go on to say that this suggests that damage is cumulative that is, with even a small number of animals, the rate of damage is greater than the rate of natural repair.*

If even a small number of horses can cause **“cumulative damage” (p22)** - how come 14 bogs in the southern Bogong High Plains, where the highest number of horses are, were deemed to be in the same state? Two sites had *improved* even with horses being present at one of these and horses being present at one that remained the same state.

“Despite a relatively small number of horses being present, soil and vegetation condition has measurably declined in many sites for which previous survey data were available, supporting the concept of cumulative damage. There is unlikely to be a minimum population size for feral horses that would not lead to incremental, on-going degradation” (p22): these statements need to be supported by something. *What do you base the statement that there is unlikely to be an acceptable minimum feral horse population size?*

Later the impact study refers to damage being cumulative over time, and and referenced Greenwood and McKenzie 2001 – However this reference study is based on a farming paddock density study - rotational grazing etc.!

During the 1890s over 800 horses and over 1000 cattle grazed the Bogong High Plains (Lawrence, 1995). During the 1990s over 3000 cattle grazed the region (Lawrence, 1995) with an unknown number of Wild Horses.

In 2002 it was estimated that Wild Horse numbers were around 200, by 2005 they had fallen to around 100 (Dawson & Miller, 2008 and today there is between 55-80 (Cairns, 2015).

This report states that *over the period 2006 – 2008*, less than 4% of bogs assessed on the Bogong High Plains showed evidence of feral horse impacts.

By 2017, when the population of horses is at its lowest in over 120 years, this has increased to approximately 32%.

It is much more likely that a change or error in collection method would create this increase in impact rather than cumulative impacts that did not begin culminating until after 2008.

Alternatively one could say that a reduction in the horse population has led to worse outcomes for the bogs, and hence population reduction should be immediately halted.

Australian Brumby Alliance Inc. 15 April 2018