

FERAL HORSE- SHORT NOTES APRIL 2008

The Feral Horse (& Pig) Problem in the Cobberas Section of the Alpine National Park **Implications for: Our National Water Resources** **The Conservation of Alpine Habitats and Biodiversity** **The Transmission of Livestock Diseases by Feral Animals**

The Cobberas Area

The Australian Alps extend from the ACT (Namadgi NP), through NSW (Kosciuszko NP) into Victoria (the Cobberas section of Victoria's Alpine NP)..

The Australian Alps contain the headquarters of Australia's largest river, the Murray, and the headwaters of the mighty Snowy River, which have been diverted into the Murray via the Snowy Hydro Scheme.

In Australia, Alpine areas form only a small proportion of its predominantly dry landmass, they are a major provider of its water resources, contain important Alpine habitats and species, and support an important tourist industry.

Whilst a feral horse (and pig) problem identical to that described in these notes exists in other parts of the Australian Alps, and around Bogong, these notes principally deal with the Cobberas section of Victoria's Alpine National Park (the Cobberas). That is the park east of Benambra including the Cowombat and Buchan Wilderness Areas, areas around the Limestone, Davies Plain, Mts Cobberas, the Playgrounds, Wombargo through to Black Mountain.

The Problem

In a nutshell the problem is feral horses in unsustainable numbers (often combining with the destructive activities of feral pigs) causing serious long-term damage to:

1. To delicate Alpine habitats, including alpine bogs or (sometimes called moss beds) and as a consequence, damage to the rare and endangered species and general biodiversity these habitats support;
2. The ability of these Alpine National Parks to sustain their core functions; and
3. A national water asset. That is serious structural damage to the water producing and regulating ecosystems that have provided a year round reliable, quality water flow to the Murray and Snowy Rivers. Yes, the Murray is dying at both ends!; and
4. The Alps ability to withstand or minimise the impact of climate change.

In addition

5. Horses and pigs are potential carriers of livestock diseases such as equine influenza (horses), and foot and mouth disease (pigs). These mobile feral populations extend from rugged mountain country down into more populated farm land. Any diseases they harbour cannot be easily eradicated, or quarantined from moving into domestic livestock.

Horses graze, trample, pug, and deposit horse dung, on a variety of alpine habitats. Of particular concern is the impact of grazing and tramping on delicate wet areas.

Pigs whilst not present in great numbers are insidious and most destructive. One pig can quickly demolish a sphagnum bog that may have taken thousands of years to form. Their methodical ploughing up (rooting) in bogs and other wet areas opens these areas up for horses to come in and trample delicate habitats into a muddy mess. And open them up to the invasion of invasive, non typical, vegetation and weeds.

Feral horses come from a domesticated environment where their numbers and quality of their breeding has been strictly controlled for thousands of years. Without any natural predators, other than nature itself, and without the natural, drought specific, breeding mechanisms of native animals, horse numbers can build up quickly.

During 2006-07 horse numbers in the Cobberas built-up to a point where they are now present in unsustainable numbers in every remote nook and cranny of the Cobberas. A shortage of traditional feed caused the feral horses to move into wetter alpine and sub-alpine habitats they once tended to avoid. As a result these habitats, in particular the Cobberas' delicate water retentive ecosystems, have taken a real belting.

In the Cobberas, these delicate habitats are being damaged beyond their ability to recover, Similar damage is occurring in other alpine areas in Victoria and NSW. And in the process, a major national natural water resource is being trashed.¹

Whilst National Park managers, scientists, nature lovers, conservationists and other recreational users of the Cobberas area have expressed concern about this destruction of delicate Alpine habitats, etc., little is being done to effectively deal with the issue.

A National Water Resource being trashed

*"Rivers and streams exist only because of the catchments that feed them, and cannot be regarded as separate entities to those catchments."*²

The aquifers, bogs and wet areas of these Alpine areas act like a giant sponge. They soak up the water from snowmelt and times of heavy rainfall and slowly release it in a steadier flow. They do this throughout the year, and continue to provide water in times of drought. Following a drought these water-retaining systems may take some years to recharge. In addition, these wet habitats filter water, and ensure its purity.

In the Cobberas these wet areas, consist of, large and small sub-alpine snow meadows and soaks surrounded by various types of montane forests. They form in valleys, depressions, and on hillsides where springs or soaks are present.

A major indicator of the current overpopulation of horses is that they have moved into wetter areas they typically avoided, or passed through via the shortest driest track, or only grazed the edges of. In the Cobberas today there are clear signs of horses in all the snow meadows and wet areas I, and others, have visited recently. The smell of horse dung is everywhere.

The worst damage is done when moisture retaining sphagnum bogs [AKA moss beds], swamps/marshes, wet heathlands, delicate wet stream edges, areas surrounding soaks and springs are broken down by horse grazing, trampling/pugging and by pigs. Vegetation is removed. Once delicate and moisture retaining habitat is reduced to mud. Indistinct water flows meandering slowly through marshy vegetation are changed into straighter, faster flowing, often silted, drain like channels. Herb rich stream edges are replaced by mud and pugging, and eventually a different vegetation type grows back. My photos show plenty of examples of this phenomena.

Some people seeing this horse damage might say: "So what's the real problem about a bit of horse damage to a small snow meadow or sphagnum bog. It doesn't look that bad, and in time it will recover." The fact is that the peat beds underlying these sphagnum bogs have been dated at between 2,000-4,000 years old.³ Once damaged, these delicate habitats may never recover. They cannot recover if horses continue to be present.

And when this damage is repeated in wet area after wet area, we have damage on a micro level, which, repeated often enough, creates a macro problem in terms of the sustainability, reliability, quantity and quality of Australia's major water supply system.

¹ My before and after photos clearly show this. They, are available on request

² Dr Christine Jones

³ Alpine Taskforce Report page 28 item 3.35

Impact on Areas Reserved for Nature Conservation

Impact on Rare Habitat and Biodiversity

My discussion paper, notes, and my before and after photographs describe the major destructive impact feral horses and pigs are having on alpine habitats including on rare and/or endangered or environmentally important alpine flora and. Conservation of these alpine habitats, and the biodiversity they support, being the principal reason for the establishment of these Alpine National Parks.

The list of habitats, flora and fauna severely impacted by feral horses includes:

- Alpine and sub-alpine bogs, bog communities, and snow meadows
- Marsh Leek and Alpine Sun Orchids, Blue-tongue Greenhood, Alpine Marsh Wort
- Alpine Spiny Crayfish, Alpine Water Skink, Alpine Bog Skink, Broad Toothed Rat, Alpine Tree Frog

And there are many others. For example the Alpine Taskforce report lists 25 flora species, 7 fauna species and 4 plant communities listed as rare, venerable or threatened with extinction, as being significantly threatened by cattle grazing

Cattle Removal, Subsequent Horse Damage & the Alpine Taskforce's Report

Unlike feral horses, cattle only grazed the high country in the summer months with licences in place to limit numbers at any one location. There is compelling anecdotal evidence that the Mountain Cattlemen actively managed horse numbers, to preserve habitat for cattle grazing. Certainly horse numbers have increased since cattle removal.

In respect of the areas of the Cobberas I know well, from before cattle removal, I am of the opinion that the damage I now see being caused by feral horses, is far worse than the damage I saw, caused by cattle grazing. In particular the extensive damage to the bogs, stream edges, and wet areas depicted in my before and after photos. As my before photos show, these places largely survived many decades of cattle grazing, but are now being destroyed by feral horse and pig damage.

The very comprehensive Report on the Future of Cattle Grazing in the Alpine National Park by the Alpine Grazing Taskforce inter alia concluded:

1. *Cattle damage water catchments, causing bare ground, soil disturbance and erosion, and trample moss beds [ie; Bogs] and watercourses.*
2. *At least at a localised level, grazing adversely affects water quality.*
3. *Grazing modifies and damages vegetation in the park, with the Taskforce finding the evidence of damage caused by cattle to moss beds and snow patches to be compelling.*
4. *Cattle grazing is considered a significant threat to at least 25 flora species, 7 fauna species and 4 plant communities found in the park that are listed as rare, vulnerable or threatened with extinction.*
5. *Cattle have contributed to the establishment and spread of several weed species.*
6. *On the evidence before it, the Taskforce concurs with the conclusions of the 1998 Groves report, that the scientific research is adequate and consistently reveals that grazing has deleterious effect on biodiversity.*
7. *Rehabilitation and restoration necessary to repair modified and damaged areas is very difficult with continued presence of cattle.*
8. *The Taskforce finds significant damaging impacts and no overall benefits of the environment from cattle grazing in the Alpine National Park.*

The Report (Chapter 3) describes the impact of cattle grazing. In my opinion horses are, now causing the same damage, and impacts. Read it, and compare the impacts described in it, with the horse impacts described above.

Climate Change

Horse damage destroys the very structure of Alpine wet habitats. Climate change will allow horses to extend the period of their destructive presence in these habitats, and allow less time for them to recover.

The Taskforce considered research and the National Biodiversity and Climate Change Action Plan 2004-07 and concluded:

Under climate change, species that are already vulnerable will be most at risk. The Australian Alps are considered to be one of the three most vulnerable ecosystems in Australia to potential climatic warming because of their restricted range and cold climate. Some specialised alpine communities will come under severe threat, while herbaceous communities will be more susceptible to invasion by woody species. The preferred and most practical option to minimise the impacts of climate change is to retain, restore and protect existing habitat, so that the whole ecosystem becomes more resilient.

Fire, Feral Animals and Damage to Sphagnum Bogs (AKA Moss Beds)

It is rare for intact sphagnum bogs to be significantly damaged by fire. However:

- Bogs may be superficially damaged by fire burning/singing the surface of moss beds. This damage will naturally regenerate unless horses and/or pigs are present, in which case the damage creates an opportunity for pigs and/or horses to move in and start to open up and damage the bog.
- Bogs that have been damaged/opened up, as a result of damage by pigs or horses (or previous fires) are more likely to burn than intact bogs.

What is being done?

The Alpine Brumby Management Association (ABMA) is contracted to remove a minimum 100 feral horses per year from the Cobberas area by brumby running. Between 1999-2002 the ABMA removal rate was some 200 per year. Since then the rate has been around 100 per year

What population studies there have been, indicate that annual removal of 100 horses will still result in a population increase, and in practice that has been the experience.

To make any real impact on horse numbers the population studies indicate removal at the rate of around 300-350 horses per annum. However that study was carried out some time ago when the total Cobberas population was estimated to be some 2,000 horses. The current population may well exceed that number.

There are no plans, or funding, to increase this rate.

The situation is different in the Bonang unit of the Alpine National Park where contracted yard trapping is taking place with a view to reducing horse numbers.

However due to funding constraints Parks has determined that:

- The Bonang unit should be given priority for the allocation of scarce funding/resources and thus priority for horse population reduction.
- There will be no increase in removal activities in the Cobberas area until such time as the program in the Bonang unit has significantly reduced horse numbers to a point that will allow the switching of those resources to the Cobberas.

How many years will it take to deal with horses in the Bonang unit? And how many years before any effective action is taken in the Cobberas?

What should be done?

This topic is discussed in my discussion paper which supports adoption of the 3 methods of horse capture identified in the New South Wales Horse Management Plan:

- a Trapping through contract arrangement. [Trap Yards]
- b Roping through contract arrangement [Brumby Running].
- c Mustering through contract arrangement. [Mustering]

However I suggest any such contract arrangements should provide both directives and incentives to target the removal of young fillies as this will have a greater impact on reducing the horse population.

At the very least additional contractors should be engaged forthwith to complement the work of the Alpine Brumby Management Association, and to dramatically increase the number of feral horses removed from the Cobberas area.

My Notes and Discussion Paper deal with other elements to be included in a properly funded Cobberas Feral Horse Management Program as part of a coordinated multi-jurisdictional program throughout the Australian Alps.

I think that such measures could be implemented locally with a minimum of fuss.

Its Mostly about funding!

These days people don't talk about the Murray River being a river system under stress. They talk of its condition as being desperate. Towns along the Murray are in dire straits. Long established, and once prosperous, rural industries are without water and dying. Much of the State of South Australia is dependant on a reliable flow of water in the Murray, and that is not occurring. Expenditures of the order of \$10 billion are proposed to fix the ailing Murray-Darling.

In the midst of all this an unstainable feral horse population explosion is trashing the very source of the Murray in its primary catchment. And apparently there are no funds available to deal with the problem. In terms of what is at stake, the amount of funding required is peanuts.

If, in a time of global warming, and predicted increased dry conditions in southern areas, the State and Federal governments are serious about maximising the quantity and reliability of the vital water resources contained in the Australian Alps, they will provide the ongoing funding necessary to implement a comprehensive Feral Horse Management Plan for all of the Australian Alps.

A Multi Government Approach?

There are sound arguments (including protection of a national water resource and the impact of climate change) favouring Federal Government involvement and the joint management of the Australian Alps as one truly national (and iconic) National Park and tourist destination. I think its is time such a proposal were seriously considered

More research, but no more delays

We certainly need more research to learn about, and better manage, these issues.

On the other hand, the basics of what is happening in terms of the feral horse build-up, and its impacts, are clear, and well understood. The immediate steps that urgently need to be taken to deal with the issue are not rocket science.

So please don't, as so often happens let, the desire for more research, or trials, delay the actions that need to be urgently taken.

Bill Kosky
28 March 2008

Further Material - See next page

Further Material

My before and after photos and a Discussion Paper

These notes were prepared following circulation of a discussion paper and discussion of its subject matter with numerous people.

My before and after photos the Discussion Paper and other material can be found at the High Country – Feral Horses website accessed via the “High Country Feral Horse link at www.retiredaussies.com including::

- *The revised Discussion Paper that was first circulated for comment in March 2007. It is a little disjointed and repetitive and some matters are out of date. However it does contain much useful discussion of and information on the issue including of horse populations and population ecology.*
- *Before and after photographs showing horse and pig damage with commentary explaining these photos.*
- *Links to sites contain further information.*

For the effect of similar impacts caused by Cattle grazing:

The Report on the Future of Cattle Grazing in the Alpine National Park by the Alpine Grazing Taskforce - March 2005 (and other relevant information) is available on www.dse.vic.gov.au From this home page go to Parks & Reserves then to Alpine National Parks.

A site established by The Victorian National Parks Association to illustrate the impacts of cattle grazing at www.cowpaddock.com