

Proper grazing saves fire risk

By David Mason-Jones

The visit to Australia by Allan Savoury this month is likely to heighten public awareness over the issue about what methods to use to control wild fires in alpine settings, bushland areas and national parks.

Allan's extensive work showing the benefit of the herding effect of grazing animals is gathering wider and wider public acceptance and scientific recognition. Many of the implications of Allan's insights seem to contradict what has been regarded as the traditional wisdom in regard to bushland and natural forest management. Allan has been nominated for a prestigious international recognition. Others who have previously received this award include David Suzuki, and Sir David Attenborough.

The issue at hand in the alpine regions, highlighted so dramatically by this year's fires in the mountains to the South of Canberra, and in Canberra itself, is how to best reduce the risk of high intensity fires which destroy everything in their path. It is widely recognised that fire has played a role in the Australian ecology but the type of fire involved in the past is likely to have been a lower temperature event than the devastating fires we saw last Summer.

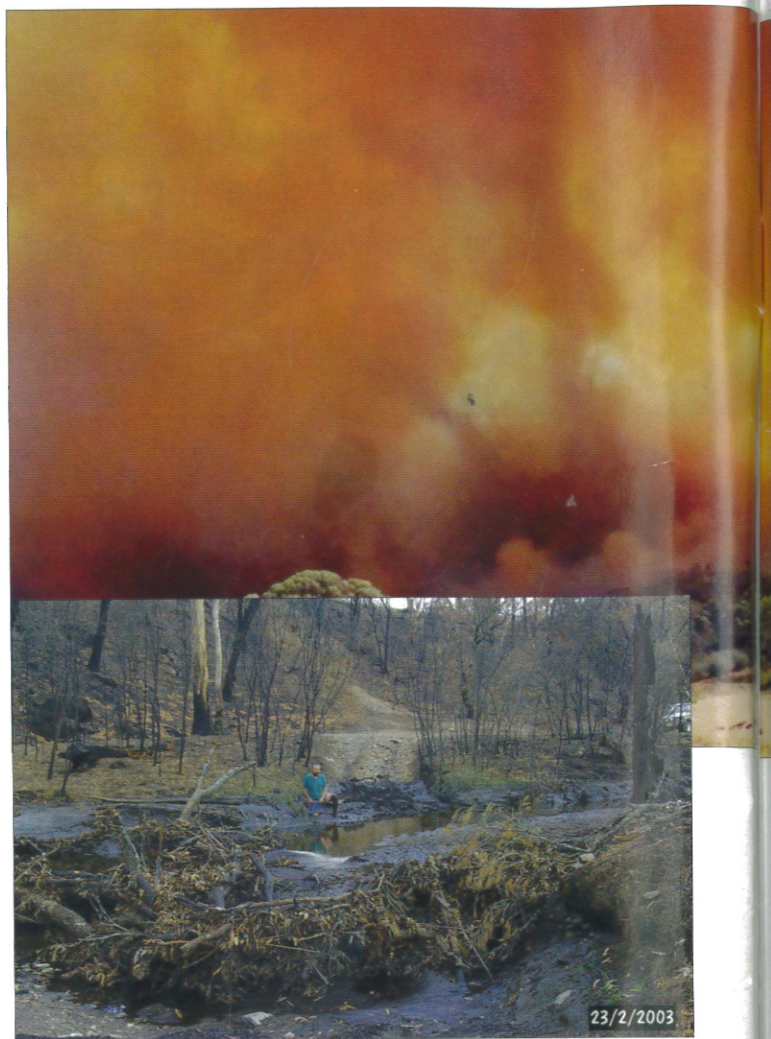
The devastating fires we have seen recently are due to a number of circumstances and one of these is the accumulation of fuel loads in the bush. In the long distant past these fuel loads were grazed in Australia by the megafauna - diprotodon and procoptodon for example. Since the megafauna

died out the grazing role they carried out was continued to some extent by surviving wild life and simulated in the regular use of low intensity fires by the human population. Since European settlement the grazing role of the megafauna has been initially carried out by restoring large grazing animals such as cattle and sheep and also by regular, low intensity, use of fire - burning off.

The cycle of grazing and fire which was initially set up in the bushland and alpine regions has been interrupted by government intervention to force the de-stocking of grazing animals in the alpine region. This management intervention has been motivated by the belief that reduced grazing is in the best interests of biodiversity and the survival of a thriving natural ecology.

The problem, however, is that the theory may contain a fatal flaw. This weak link is that the act of removing grazing animals results in a build up of fuel at the surface of the land. The weak link has the unintended effect of causing the rest of the theory to come crashing down every time there is a high intensity fire.

Long term resting (ie, non-grazing) of the alpine landscape means that the nutrient cycle in the land is broken. Nutrients are moved from the ground into the above-ground portion of the plants and, when the dry season comes, these nutrients become suspended above the ground in the form of dead twigs, leaves or branches. In the absence of grazing they may remain in this form, useless to and unaccessible



Ian Franklin, of Brindabella, shows what is left of the world famous trout hatchery in Flea Creek. 25 years of de-stocking built enormous fuel loads and the result is an ecological disaster.

by, other plant life for years. Each year as a new growing season occurs, more nutrients are moved from the soil to the vegetated space above the ground and each year more of this bio material dies off when the dry season comes.

The result is a massive accumulation of the land's nutrient value suspended as dry material just above the earth. Given a long enough period, this can result in a move towards the desertification of the land because there is a nutrient deficiency in the soil. This means that the management objective of protecting the ecology and protecting the soil is

defeated as more of the ground surface become bare. This opens the way to a reduction of bio diversity and causes other detrimental effects such as increased erosion. In this circumstance - where nutrients are 'frozen' above the ground - the advent of any fire is a catastrophe because it turns the valuable nutrients into gasses and they lift away from the landscape forever in the smoke pall.

Not only does the unnatural accumulation of fuel loads have a bad effect on the natural plant life, it also harms the animal life because it turns the possibility of a high