



TASMANIAN | Land | CONSERVANCY

Conserving and managing the Vale of Belvoir



Photo: Sib Corbett

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As the Vale of Belvoir campaign continues in earnest, our fundraising team has been very busy managing the generous public response. Meanwhile our reserve management team has been working steadily to develop and put in place management strategies to ensure the protection of the reserve's spectacular array of conservation values.

The Vale of Belvoir supports the most diverse sub alpine grasslands in Tasmania, including eight plant species that are rare, vulnerable or threatened with extinction. The outstanding diversity of these grasslands as recognised as a major omission from the Tasmanian Wilderness World Heritage Area by Jayne Balmer and other botanists in a 2004 review of the floristic values of this area.

The Vale of Belvoir is also a key site for demonstrating geological and geomorphological processes in western Tasmania. At 800m altitude, the Vale is the only sub alpine limestone valley in the state. It has been partly infilled with basalt, which accounts for some of the fertile soils, which grasses love. It was also covered by ice in the early part of the last Ice Age, which re-distributed the basalt across the valley and transported

Dr Keith Corbett at Daisy Dome, Vale of Belvoir
dolerite erratics from Cradle Mountain. The limestone on the valley floor forms an active karst system, with numerous sinkholes and caves.

The Vale of Belvoir has long been a valuable site for studies into sub alpine conservation biology. This research includes: studies by the Tasmanian Government's Threatened Species Unit assessing populations of the threatened alpine candles (*Stackhousia pulvinaris*); University of Tasmania (UTAS) PhD research into fire and grazing interactions in the grasslands by Dr Steven Leonard; and analyses of pollen in the soil profile by Michael-Shawn Fletcher of the University of Melbourne to determine the relationships between vegetation cover and the environment over the past 15,000 years.

Scientists believe that natural disturbance of the ecological cycle is the main reason for the continued presence of the Vale's grasslands. The term 'disturbance' is used by ecologists to refer to the interruption of the natural cycle of succession, and does not imply negative impacts, despite the more common use of the word.

Prior to European settlement we believe
'protecting Tasmanian land for biodiversity'



Old boot and hut remnant on the Conservation Area adjacent to the Vale of Belvoir



Steven Leonard gathering PhD research data at the Vale

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the grassy vegetation was maintained through fire-stick farming by indigenous people, combined with grazing by native herbivores – wombats, wallabies and pademelons. These types of disturbance maintain spaces between *Poa* and *Diplarrena* tussocks, providing habitat for the many herbs which give the grasslands their high levels of diversity. Without burning and grazing in grasslands, tussocks can become rank and there may be invasion by woody species.

Since European settlement disturbance by native herbivore populations has been reduced by hunting, although the introduction of cattle grazing during summer months may have replaced this disturbance. A mosaic burning regime was employed by the previous owners, the Charleston family, to maintain the condition of the grasslands.

Concerns about the impact of cattle grazing in the Vale grasslands led to a grassland monitoring project undertaken by Louise Gilfedder of DPIW and other government scientists in the 1990s. Results from this study have shown no statistical difference in the grassland diversity in areas that were grazed by cattle compared to areas ungrazed by cattle. This research will be continued by the TLC in the long-term, ensuring that any changes occurring over multiple decades can be appropriately managed.

Current research supports the opinion of grassland ecologists, who recommend that

the TLC not end the grazing and burning regime without a clear understanding of how this will affect biodiversity values. Given this, the TLC will continue the grazing and burning in partnership with the Charleston family, whilst working with a team of scientists to monitor any environmental impacts.

We will adapt grazing practices if the results of monitoring suggest that any conservation values are being negatively impacted. For instance, cattle do have a clear impact on water quality and riparian vegetation in the wetlands, and can also damage the karst. The TLC will work with the Charleston family to erect and maintain fences that exclude cattle from these areas. If necessary, we can also reduce cattle numbers or alter the length of time they spend in the Vale to ensure the ongoing protection of conservation values.

The TLC has developed an interim management plan which highlights the conservation values and known threats to these values. Management actions to manage the source of these threats are identified, including fencing around wetland and karst areas, monitoring grassland diversity and working with neighbours and the former owners to record the previous burning regime, and develop a future fire management strategy.

Denna Kingdom - TLC Reserves Manager

Research at the Vale

The Vale of Belvoir is a place of extraordinary beauty and conservation significance. It is also an important site for ecological research. Researchers have been working at the Vale since the 1980s, mainly focusing on the effects of cattle grazing on the vegetation.

For my UTAS PhD research over the last four years I have examined how grazing affects the likelihood of fires occurring in native grasslands, including the Vale. The Vale is a really interesting site; there are large populations of native grazers, so I expected they would have a large impact on the fuel load. However this did not occur. This result was due to the nature of the dominant grass species. The large tussock grasses are not attractive to grazing animals because their leaves contain a lot of silica, and they accumulate large amounts of dead foliage. The grazers mostly eat the small herbs and grasses that occur between the tussocks, and therefore have little impact on fuel load or the likelihood of fire.

This finding is important for the management of the Vale. Periodic disturbance is required in grasslands to reduce the biomass of the dominant grasses, thereby allowing the regeneration of other species. The fact that grazers are not carrying out this role at the Vale may mean that regular burning is required to maintain the diversity of plant species.

Dr Steve Leonard - University of Tasmania



John Ramsay



Wedge-tailed eagle eye view in the northern midlands

Meet the board

We were delighted when John Ramsay agreed to join the TLC board in 2008. Since 2005 he has operated a consultancy business in health and environmental matters, after a long and distinguished career in the Tasmanian public sector.

For over 23 years John held the positions of departmental head for the Justice Department in the 1980s and the Department of Health and Human Services from 1998 to 2005. However, it was his responsibilities as Head of the Department of Environment and Land Management 1989-1998, which confirmed his personal and professional interest in environmental, conservation, and land management issues in Tasmania.

He is currently Chairman of the newly formed and independent Tasmanian Environment Protection Authority.

“The apolitical nature of the TLC and its commitment to the management of land for conservation purposes, both as manager of land and through private ownership, was a key factor in my decision to join the TLC board”, John says.

“I am particularly interested in the TLC’s role and responsibilities as a land manager, given the special areas that the TLC has acquired and now manages as reserves”.

We are very pleased he is donating his expertise and time to the TLC.

Protecting eagle habitat

Whether it is on the coast, in a damp gully in the midlands or a small patch of black peppermint forest in the heart of Tasmania’s agricultural region, the importance of a view from an eagle’s nest is highly significant. Much like ourselves, wedge-tailed eagles (*Aquila audax fleayi*) in particular like a good view of their territory.

The TLC/Roaring 40’s Eagle Nest Protection Program (ENPP) is now drawing to a conclusion with the targets being met. The initial 12 month programme was extended by two months with the aim of securing another two white-bellied sea eagle (*Haliaeetus leucogaster*) nests. This target has also been met. As with the other nest sites protected through the programme, the areas are significant as they not only contain active sea eagle nests but also have threatened vegetation communities, and in one case adjoins an existing reserve. By complementing existing reserves we are able to be more confident that other potential nest sites are available should current nests suffer damage.

In total the programme has negotiated conservation agreements for 11 nest sites and surrounding habitat. The average size of the covenanted area is around 32 ha covering a range of vegetation communities throughout Tasmania. These include three properties in the midlands bioregion, Tasmania’s most unreserved landscape, and three in the

south-east bioregion, all with excellent swift parrot (*Lathamus discolor*) habitat. One area on Bruny Island is adjacent to known forty-spotted pardalote (*Pardalotus quadragintus*) habitat, and two others have threatened vegetation communities. All of the sites provide potential habitat for a wide range of other species including the Tasmanian devil (*Sarcophilus harrisii*), and spotted-tailed quoll (*Dasyurus maculatus maculatus*), and the masked owl (*Tyto novaehollandiae*).

Providing larger protected areas with minimal disturbance is a recommendation of the Threatened Tasmanian Eagles Recovery Plan (2006-2010) which should lead to the maintenance of nest productivity. Another benefit of the project has been the ability to record information on nest activity and new nest sites, or to confirm that nests are no longer in existence.

As approximately 42% of wedge-tailed eagle nests occur on private land, integration with other private land conservation programmes is important. The objective being to gain the best possible conservation outcome for the species and landowners involved.

The TLC is also pleased to announce that the Roaring 40’s/TLC ENPP is going to continue for another two years with Roaring 40’s committed to undertaking further offsets as a part of the soon to be

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Prime eagle real estate

Photo: Leigh Walters



Diana Duncan at Arthur River

Photo: Fred Duncan



Volunteers removing spanish heath on the Egg Islands

Photo: Denna Kingdom

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constructed Musselroe windfarm.

The new programme will have similar objectives to the current programme. There will, however, be minor changes based on what we have learnt throughout the year. So if you have a white-bellied sea eagle or wedge-tailed eagle nest on your land, feel free to give me a call on 03 6331 9295. The TLC very much hopes that the next phase of the ENPP will produce similar results that lead to enhanced breeding opportunities for both species, as well as gaining other conservation outcomes.

In undertaking projects such as the ENPP the TLC is able to reach people in the community that may otherwise be unaware of our activities. We are also able to generate income that can be used to assist in our core business of buying and managing land for conservation purposes.

I have appreciated the opportunity to work with landholders across the state, and am hopeful that the nest sites protected through this project will maintain these magnificent birds as they truly inspire us to continue our work.

Leigh Walters - TLC Conservation Programmes Officer

Diana Duncan

Diana Duncan, who touched the hearts of all who knew her, died on the 28th January 2008, the day of the official launch for the Vale of Belvoir. A substantial contribution was made to the appeal in her memory by her husband Fred and their two children, Peter and Breona.

Diana, often in association with Fred, studied aspects of Tasmania's vegetation and contributed to many conservation projects over the last thirty years.

Diana graduated in science from Sydney University in 1974, and moved to Tasmania in 1975. She was awarded first class honours from UTAS in 1979, for a two-year project examining the succession and reproductive strategies of bryophytes in the Southern Forests.

Diana was involved in many vegetation mapping, environmental assessment and land management projects, particularly in the Hobart area. She played a significant role in land care and educational activities, working with students and community groups.

Diana and Fred were active in campaigns to protect the Franklin River and important forest areas, including the Douglas-Aspley National Park. She followed a conservation ethic in her personal life and is greatly missed by all who knew her.

Supporter news

As the financial year draws to a close we would like to say a big thank you to all our financial supporters and volunteers. Launching our ambitious Vale of Belvoir campaign in an uncertain economic climate has been challenging, but we have now reached the \$350,000 mark. We anticipate that the coming 12 months will continue to be economically difficult but have firm confidence in our ability to reach the \$600,000 goal with your help.

A special expression of gratitude goes to Dr David and Mrs Jane Jupe for hosting a fundraising event for the Vale of Belvoir in May 2009, and to Dr Keith and Mrs Sib Corbett for sharing their professional knowledge and expertise on the Vale with the event's guests.

We are currently finalising plans for fundraising in the new financial year and we hope to expand our monthly regular donor and bequests programmes. If you are interested in either or both of these programmes, please call Amanda or Jo on 03 6225 1399.

We are also keen to receive public comment during June and July on our draft management plans for the Egg Islands Reserve and the Flat Rock / Chauncy Vale Reserves. Please contact Ruth Osborne on 03 6225 1399 for more details.

We are grateful to the following organisations for their support in recent months

