

6. Management issues for Dandenong Ranges National Park

Aim

This activity encourages students to consider the potential impacts of visitors and nearby activities on Dandenong Ranges National Park.

It provides a local application of the more general activities 9: Management issues, and 12: Visitor impact and management strategies in Section 1.

Materials

- Resource sheet 6: Management issues for Dandenong Ranges National Park.

Activities

1. Draw up a table similar to the one below. Note: you will need more than two rows.

Management issue	Environmental impacts this issue can cause	Possible management strategies

2. Read the resource sheet. List the main management issues in the LHS column, one per row.

3. In column two of the table, dot point the environmental impacts this issue may cause if not properly managed.

4. In column three dot point some possible management strategies for reducing this impact.

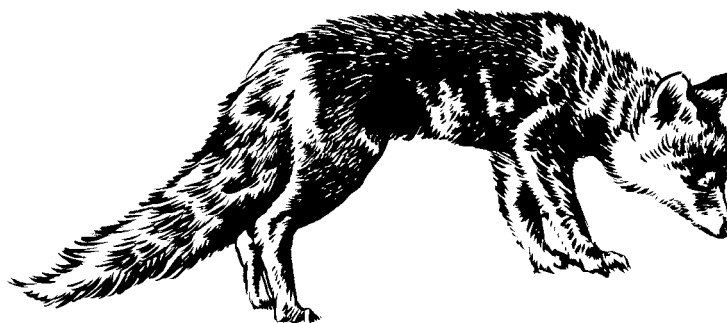
Extension

5. Investigate these management issues further during your site visit.

Links to Section 1

See also Section 1 of this education resource kit, in particular:
Parks and SOSE

9. Management issues in national parks.
12. Visitor impact and management strategies.



Red fox © MT

6. Management issues for Dandenong Ranges National Park

Dandenong Ranges National Park needs to be actively managed to protect its natural and cultural values, and to provide opportunities for conservation, recreation and education of visitors.

A variety of issues have threatened the fauna, vegetation and landscape of the park. These include logging, fires, introduced plants, pest animals, urbanisation and recreation impacts.

Urbanization

Residential development is the single greatest threat to the indigenous fauna and flora of Dandenong Ranges National Park. Residential developments abut virtually all of the park's boundary.

Some residents do not recognise the effects of their activities on the park.

Management problems for Dandenong Ranges National Park caused by urbanisation include:

- Predation by wandering pet dogs and cats on the Superb Lyrebird, and other native birds and mammals.
- Invasion by garden plants from surrounding properties.
- The need for increased fire protection works to protect surrounding properties.

Other problems arising from urban proximity include rubbish dumping, car dumping, illegal removal of vegetation and major environmental disturbance by trail bikes and four-wheel drive vehicles.

Housing

As a result of cheap land prices and a popular desire to escape the suburbs the Dandenong Ranges experienced a building boom in the 1960s and early 1970s. This unprecedented increase in housing threatened the overall integrity of the natural environments in the Ranges.

Subsequently, old and inappropriate subdivisions were subject to a government

land purchasing program and this land has been added to the park.

Residential development was further controlled in the 1970s and 80s by the formation of the Upper Yarra Valley and Dandenong Ranges Authority (a planning body) and major amendments to the local planning scheme of the Shire of Yarra Ranges in the 1990s.

Drainage

Vegetation dieback has resulted from stormwater runoff from roads, the drainage of domestic wastes and treated effluent from individual residential properties, commercial and other development around the park. This has culminated in serious environmental degradation and loss of scenic quality along the edges of the Dandenong Ranges National Park.

Some drainage lines appear to have been poorly constructed, directed and maintained. This appears to have been responsible for the degradation of trees and subsequent weed invasion within park boundaries. Stormwater runoff under intense rainfall conditions has also resulted in high turbidity and suspended solids in some of the park's creeks.

Subsequently the drainage issue has raised concerns about the adequacy of disposal on private land and the need to protect the park from effluent discharge from surrounding residential and commercial areas.

Introduced fauna

Many introduced species occur within the park.

Those adversely affecting native fauna and flora include domestic and feral cats, domestic dogs, foxes, rabbits, Blackbird and Common Starling.

Other introduced fauna found in the park which currently pose little or no immediate threat to native fauna include:

House Sparrow, Common Mynah, Black Rat and House Mouse.

In the past, rabbits had a major impact on vegetation and wildlife habitat. Their numbers have declined over the past 10 years.

Starlings are present in large numbers in the Park and their numbers seem to be increasing. Although they favour cleared and urban areas, they invade nearby native vegetation where they dislodge native birds from feeding sites and breeding hollows by their aggressive nature.

Blackbirds are widely dispersed throughout the park and spread the seeds of weeds in their droppings.

A variety of strategies and actions have been adopted in recent years to reduce the number and impact of pest fauna. Control programs have included shooting, trapping and baits.

The development of park regulations, community programs and local legislation has further reduced the impact of domestic dogs and cats. A community education program which encourages responsible pet ownership has been extensively promoted throughout the area.

The Animal Control Local Law, the first of its kind in the world, limits the number of cats per household and requires that cats be enclosed indoors between specified hours to keep them in at night. Also as part of the Animal Control Local Law both cats and dogs need to be registered with the local Council.

The long term solution to protecting native fauna depends on reducing the population of dogs, cats and foxes in and around the park.

Introduced flora

The spread of introduced plants from adjacent suburban and rural areas has caused a gradual change in the structure and diversity of the park's vegetation. This has led to substantial change in the character of the ecosystems and habitats in the park, with corresponding effects on wildlife.

Of the 173 species of introduced plants in the park, 32 are significantly threatening or endangering the viability of the native vegetation. These introduced species pose a threat to the survival and integrity of the park's native vegetation and wildlife habitat. Of the significant pest plants in the park, six are Australian native species and 26 are exotic species of which six are declared noxious weeds.

The plant communities in the park are remnants of the original vegetation. Over the last 150 years, with the rapid growth of metropolitan Melbourne, the original vegetation has been severely depleted.

Settlement in the Dandenongs brought with it logging, fires, introduced plants and a range of public activities, all of which have markedly modified the indigenous vegetation in the park.

Fires, fuel reduction and maintenance of access tracks in conjunction with urban development has facilitated weed invasion which has significantly altered the natural vegetation communities in some areas. It has changed the structure and extent of vegetation communities particularly around the fringe of the Park.

Overall the future ecological viability of the vegetation in the park, and its value as habitat, is threatened by continued internal and external development and public use.

Management aims include:

- Protect and maintain the full range of the natural plant communities and their diversity with particular emphasis on protecting communities and species of botanical significance or importance as wildlife habitat.
- Eradicate or control introduced species, particularly those seriously affecting habitat and rehabilitate disturbed areas.
- Develop revegetation programs.
- Develop and implement a strategy for the rehabilitation of degraded areas - control of noxious and environmental weeds.
- Encourage community and friends groups to undertake revegetation and rehabilitation programs.

Tourism and recreation

The Dandenong Ranges National Park and surrounding areas provide a unique and important recreation asset for Melbourne and Victoria. The area is characterised by and well known for its magnificent Mountain Ash forests, ornamental gardens and bushland settings. The blend of residential and tall forest areas is rarely experienced elsewhere in the State.

The majority of park's 2.1 million visitors per year use only five of the park's 21 recreation areas. The most popular venues are Ferntree Gully and picnic grounds within the Sherbrooke unit.

Many visitors arrive with little knowledge of the park and the recreation and natural forest experiences available to them. Enormous pressures are being placed on a limited number of the more obvious recreation resources along the main tourist routes.

Fire

The Dandenong Ranges have a long history of devastating wildfires that have taken a terrible toll on life, property and the environment.

Substantial areas of the park have been subjected to intense fire protection practices. A considerable portion of the upper slopes of the Doongalla and Ferntree Gully forests require maximum protection, that is fuel modification is of a nature and frequency which provide the highest level of protection to life, property and public land values.

As a result of the 1962 and 1968 fires a program of land acquisition of forested land was initiated to form a fire protection buffer on the western slopes of the ranges.

Key parts of the park's current fuel protection strategy is 'fuel reduction' either by burning or slashing coupled with the maintenance of detection systems, fire fighting resources and fire breaks, access roads and tracks.

However, the occurrence of wildfire can also be greatly reduced through public education. In the past 30 years only five of the 142 wildfires occurring in the park have been from natural causes. Nearly all the remaining fires were either deliberately lit or escaped from burnoffs on adjoining properties.

Community participation

The Dandenong Ranges and surrounding environment provide a unique natural ecosystem close to Melbourne. It is important that local residents and visitors to the park are aware of the possible impact that their actions may have on the Park and in particular on the native fauna and vegetation. A range of community education initiatives are in place, including information boards and interpretive signs in the park, ranger-led activities during holidays and a schools education program.

Community participation plays an important role in the protection and management of the Dandenong Ranges National Park. Several community groups are actively involved with the park.

Refer to Parks Victoria's website for contact details for the community groups.

- Friends of Dandenong Ranges National Park:
Project days on the second Saturday of each month at various locations in the Ferntree Gully unit of the park.
- Friends of Sherbrooke Forest:
Project days on the second Wednesday and fourth Saturday of each month.
- Chandlers Hill Parkcare Group:
Project days on each Tuesday morning.
- Friends of Hughes Creek:
Project days on the second Saturday of each month.
- Sherbrooke Lyrebird Survey Group:
Project days on the last Saturday of each month.
- Holly Hill Community Fireguard Group.
- Friends of Singleton Reserve.