



## Zone 10. Highly modified rangelands

### Zone characteristics

High fertility soils, hot to warm seasonal rainfall and large areas of cleared tree, shrub or grassland communities for dryland and irrigated cropping and comparatively intensive grazing systems. It also includes lower fertility soils supporting eucalypt forests and softwood scrub used primarily for extensive grazing.

This zone represents a transition between coastal and cropping areas in the east and the 'true' (less modified) rangelands to the west. A diverse region has been included in the zone because many areas are being converted from rangelands. Management involves a variety of issues that are dominated by land use change rather than TGP.

Most of the zone is under pastoral and agricultural use; low level of conservation across the zone; population density is high with few cities, but several large regional centres; grazing of livestock is on a year round set basis with both feed substitutions and supplementation; wide scale soil loss of vegetation degradation in some areas; problem animals include dingoes.

### Biodiversity Issues

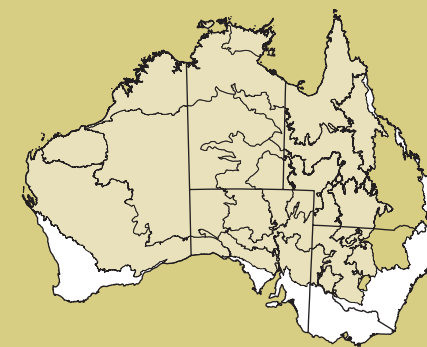
Clearing of brigalow and softwood scrub areas has led to loss of habitat and fragmentation of the landscape and also affected ground-dwelling species; several regional ecosystems endangered and many 'of concern', mostly because of the direct impact of clearing and consequent fragmentation; broad-scale declines of many species of plants and animals across the region including some species' distributions contracting to very small and isolated populations.

Threats to biodiversity: introduction of exotic species, particularly exotic grasses relate to the loss of native vegetation and the potential loss of key ecosystem processes and biodiversity values; control of grasses is both difficult and controversial in a landscape dominated by high production grazing and cropping systems; changed fire regimes leading to changed vegetation structure; localised grazing threatens remnant vegetation and special mound-like springs in the area.

### Managing for biodiversity

Knowledge required: long term impacts of landscape fragmentation and diet switching by native species; review of the current rare and threatened species lists; flexible vegetation management policies (e.g. the introduction of vegetation-clearing trading rights); economically viable thinning within thickened vegetation; potential for current vegetation management policies to protect rare and threatened species and encourage a return to functional ecosystems.

Opportunities to invest: most immediate is the protection of mound springs and small fragmented areas of remnant vegetation; control of weed species, especially those that have impacts at multiple levels (economic, environmental, human health), such as parthenium weed; continued protection of isolated colonies of mammals (e.g. the northern hairy-nosed wombat); re-establishing connectivity across the landscape based on sound science and compensation/incentive packages; incentives for collaboration across state boundaries.



# Further information



## Reference

See the full report for a comprehensive list of references.

Fisher, A., Hunt, L., James, C., Landsberg, J., Phelps, D., Smyth, A., Watson, I. 2004. Review of total grazing pressure management issues and priorities for biodiversity conservation in rangelands: A resource to aid NRM planning. Desert Knowledge CRC Project Report No. 3 (August 2004); Desert Knowledge CRC and Tropical Savannas Management CRC, Alice Springs.

## Useful web links

The Australian Rangeland Society  
<http://www.austrangesoc.com.au>

CSIRO Centre for Arid Zone Research  
<http://www.cazr.csiro.au>

Department of the Environment and Heritage –  
Managing rangelands  
<http://www.deh.gov.au/land/management/rangelands/index.html>

Natural Heritage Trust  
<http://www.nht.gov.au>

Tropical Savannas CRC  
<http://savanna.ntu.edu.au>

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