Rodinga Range and adjacent ranges

Location and Description
The Rodinga and adjacent ranges are located 100 km south-east of Alice Springs, at the north-western edge of the Simpson Desert. The Site includes the Arookara and Rodinga Ranges, as well as a larger area to the south that is dominated by the sand dunes of the Simpson Desert. These sand dunes continue up to the southern flanks of the Ranges. The ranges are predominantly Mereenie sandstone and form an extensive series of low-lying ranges and outlying hills. The ranges are highly porous and support rare plant species.

Tenure and Land Use
The Site is predominantly pastoral leasehold land within five pastoral leases (Alambi, Todd River, Ringwood, Horseshoe Bend and Maryvale Stations). The remaining portion is Aboriginal freehold title held by the Pmere Nyente and Yewerre Aboriginal Land Trusts, and there is also a small portion of vacant crown land. The main land use is pastoral operations. Santa Theresa Community (population 542) is located 13 km north-west of the Site.

Significance Rating
National Significance

Ecological Values
Five threatened species are recorded from this Site, including Black-footed Rock-wallaby, Brush-tailed Mulgara and Crest-tailed Mulgara. The Site is poorly surveyed, however, and may harbor other species or communities of conservation significance. The sandstone ranges support one plant species (*Eremophila* sp. Arookara Range) that is known only from this Site and other plants species that are endemic to either the bioregion or the Northern Territory.

Management Issues
This Site is poorly surveyed and little information is available on the processes affecting the conservation values.

Condition
No information located.

Current Conservation Initiatives
An Indigenous ranger group is being established in Santa Teresa.
RODINGA RANGE AND ADJACENT RANGES - SITE OF CONSERVATION SIGNIFICANCE

SOCS Number 65 (NT Parks and Conservation Masterplan Map Number 95)
Latitude/Longitude 24° 24´ South, 134° 44´ East (at centre)
Bioregion Simpson Strezlecki Dunefields (98%) Finke (2%)

Description
The site encompasses the Rodinga, Arookara and Pillar Ranges and the Train Hills, plus intervening areas of sandplains. The site is bounded to the north and west by the floodout of the Todd River, and to the south and east the site adjoins extensive parallel dunes systems of the Simpson Desert (White et al. 2000).

The boundary of the site is defined based on the Sites of Botanical Significance boundaries for the Rodinga and Arookara sites (White et al. 2000) with additions to join disjunct areas into one, plus a 2 km buffer. The site has an area of 3324 km².

The site has only small areas of spinifex Triodia spp. which is in contrast to the nearby MacDonnell Ranges, where a spinifex-dominated understorey is common (White et al. 2000).

Major vegetation communities include mixed species low-open woodland between dunes with sandhill cane grass Zygochloa paradoxa open-hummock grassland on dune crests with hard spinifex T. basedowii hummock grassland with acacia tall sparse-shrubland overstorey between dunes, and mulga Acacia aneura tall sparse-shrubland with low sparse-shrubland understorey (White et al. 2000).

The Greater MacDonnell Ranges lie to the north, and Andado and the Snake Creek Lakes lie to the south of this site, and both are identified as sites of high conservation significance in the NT.

THREATENED SPECIES

Significance Rating National Significance
Threatened plants and animals (Listings at National/NT level CR - Critically Endangered, EN - Endangered, VU - Vulnerable, NT - Near Threatened, LC - Least Concern, DD - Data Deficient)
Five threatened species are reported from this site.

Vertebrates
- Australian Bustard Ardeotis australis (-/VU)
- Emu Dromaius novaehollandiae (-/VU)
- Black-footed Rock-wallaby Petrogale lateralis (EN/NT)
- Brush-tailed Mulgara Dasycercus blythi (VU/VU)
- Crest-tailed Mulgara Dasycercus cristacauda (EN/VU)

ENDemic SPECIES

Significance Rating Regional Significance
Notes Endemic to the site: One undescribed plant species recorded from this site is known only from the site (Eremophila sp. Arookara Range).

Endemic to the bioregion: Two plant species recorded from the site are restricted to the Simpson Strezlecki Dunefields bioregion (Acacia desmondii and Eremophila sp. Arookara Range).

Endemic to the NT: Three plant species found in the site are NT endemics (Acacia desmondii, Eremophila sp. Arookara Range and Harnieria kempeana subsp. kempeana).

WILDLIFE AGGREGATIONS

Significance Rating Not Significant

Marine turtles Not applicable
Seabirds None known
Waterbirds None known
Shorebirds None known
Other aggregations None known

WETLANDS

Significance Rating Not Significant

Ramsar criteria met Not assessed
DIWA criteria met Not assessed
Notes No information located

Rivers No information located

FLORA

Significance Rating Not Significant

Notes Restricted range species: One plant species with a restricted range occurs within the site (Blennodia pterosperma).
Rodinga and Arookara Ranges are identified as Sites of Botanical Significance in White et al. (2000), primarily on the basis of significant populations of *Acacia desmondii* and *Eremophila* sp Arookara Range, respectively. Part of the site is listed on the Register of the National Estate for the natural values (Australian Heritage Council).

**OTHER ENVIRONMENTAL VALUES**

**Fire:** No parts of the site were burnt more than twice in the period 1997-2005, but large-scale fires can occur. Some plant species in the site, such as *Acacia desmondii*, are probably fire-sensitive and changed fire regime (from smaller mosaic burns) may be degrading the conservation values of the site.

**Feral animals:** Camel and horse are increasing in numbers throughout the area and causing damage (NRETA 2005).

**Weeds and invasive exotic plants:** Castor oil plant *Ricinus communis*, coffee senna *Senna occidentalis* (category B weeds) and buffel grass *Cenchrus ciliaris* occur within the site. Couch grass *Cynodon dactylon* is likely to be spreading in the site.

**Other:** Grazing pressure from cattle may be an issue in some areas (NRETA 2005). The extent and nature of all process affecting the conservation values at the site cannot be well defined because there has been insufficient biological survey in the area.

**MANAGEMENT ISSUES**

**NRM groups**
No information located.

**Protected areas**
The site is not within the formal network of protected areas within the NT.

**Current management plans**
- **Site-specific plans:** No information located.
- **National recovery plans for threatened species:** Brush-tailed Mulgara (SA Dept. of Environment & Heritage, in prep.); Black-footed Rock Wallaby (WA Department of Environment and Conservation, in prep.).

**Monitoring programs and research projects**
There are nine Tier 1 rangeland monitoring points within this site (Karfs and Bastin 2001). Across the NT, fire is mapped continuously under the North Australia Fire Information Project [http://www.firenorth.org.au/nafi/app/init.jsp](http://www.firenorth.org.au/nafi/app/init.jsp)

Waterholes within the site are being surveyed by Biodiversity Conservation South (NRETAS).

**Management recommendations**
Continue to provide biodiversity data to landowner to enable more informed land management decisions (NRETA 2005).
Prepare conservation plan for significant Aboriginal sites with landowners and Traditional Owners (NRETA 2005)

**Papers and reports**

**Contributors**