

Nandewar, Northern Complex, NSW



MAINLAND ISLAND CHARACTERISTICS

| | |
|---------------------------|--|
| Jurisdiction | New South Wales |
| NRM Regions | Border Rivers Maranoa/Balonne Border River/Gwydir |
| LGA | Tenterfield |
| Size | 71, 000 hectares |
| Dominant Type | Eucalypt open forests |
| Land Tenure | Agriculture |
| Surrounding Issues | Land use Pest density |

| Overall Priority | Conservation Value | Threat Status |
|------------------|--------------------|---------------|
| Very High | Very High | Very High |

Key Biodiversity Values

Key biodiversity and conservation values of NANDEWAR, NORTHERN COMPLEX, NSW

- 31 threatened species
- 3 threatened communities
- 7 migratory species
- Very high species richness
- Very high endemism
- Native vegetation present
- Vertebrate pest species present

CONSERVATION VALUE

| Categories | Ranks/Scores |
|----------------------------------|---------------|
| 1 Biodiversity values | High (12) |
| 2 Uniqueness | High (3) |
| 3 Representativeness | High (3) |
| 4 Adjacency | Very High (4) |
| 5 Area to perimeter ratio | High (3) |

THREAT STATUS

| Categories | Ranks/Scores |
|--|---------------|
| 1 Density of pest species | Very High (8) |
| 2 Pest impact level | Very High (8) |
| 3 Invasion fronts/range boundaries | Medium (2) |
| 4 Land use risk | Very High (5) |
| 5 Weed density | Medium (2) |
| 6 Area without statutory protection | High (3) |



Key Threats and Impacts

Pest Species Present or Potentially Present

| | | | | | | | |
|-------------------------------------|----------------------|-------------------------------------|--------------|-------------------------------------|------------------------------|-------------------------------------|---------------------------------------|
| <input type="checkbox"/> | Cane toad | <input checked="" type="checkbox"/> | Feral cat | <input checked="" type="checkbox"/> | Feral pig | <input checked="" type="checkbox"/> | Rodents |
| <input checked="" type="checkbox"/> | Carp, European carp | <input checked="" type="checkbox"/> | Feral deer | <input type="checkbox"/> | Feral water buffalo | <input type="checkbox"/> | Tilapia, Mozambique Tilapia |
| <input checked="" type="checkbox"/> | European red fox | <input checked="" type="checkbox"/> | Feral donkey | <input checked="" type="checkbox"/> | Indian Myna, Common Myna | <input type="checkbox"/> | Weather loach; Oriental weather loach |
| <input checked="" type="checkbox"/> | European wild rabbit | <input checked="" type="checkbox"/> | Feral goat | <input checked="" type="checkbox"/> | Mosquito fish, Plague Minnow | <input checked="" type="checkbox"/> | Wild dog |
| <input type="checkbox"/> | Feral camel | <input checked="" type="checkbox"/> | Feral horse | <input checked="" type="checkbox"/> | Red-eared slider turtle | <input type="checkbox"/> | Other |

Potential impacts of pest species on matters of National Environmental Significance

| | | | |
|--|--|--|---|
| Feral cat <i>Apus pacificus</i> <i>Neochmia ruficauda ruficauda</i> <i>Petrogale penicillata</i> | <i>Potorous tridactylus tridactylus</i> <i>Underwoodisaurus sphyrurus</i> | Feral pig <i>Almaleea cambagei</i> <i>Astrotricha roddii</i> <i>Cadellia pentastylis</i> | <i>Diuris pedunculata</i> <i>Diuris sheaffiana</i> |
| European red fox <i>Elessya belli</i> <i>Gallinago hardwickii</i> <i>Merops ornatus</i> <i>Neochmia ruficauda ruficauda</i> | <i>Petrogale penicillata</i> <i>Potorous tridactylus tridactylus</i> <i>Rostratula australis</i> <i>Underwoodisaurus sphyrurus</i> | White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland | European wild rabbit <i>Diuris sheaffiana</i> <i>Eucalyptus mckieana</i> <i>Lepidium peregrinum</i> <i>Petrogale penicillata</i> |
| Feral goat <i>Acacia macnuttiana</i> <i>Acacia pubifolia</i> <i>Almaleea cambagei</i> <i>Astrotricha roddii</i> <i>Boronia granitica</i> | <i>Cadellia pentastylis</i> <i>Grevillea beadleana</i> <i>Petrogale penicillata</i> <i>Prostanthera staurophylla</i> <i>Underwoodisaurus sphyrurus</i> | Wild dog <i>Merops ornatus</i> <i>Potorous tridactylus tridactylus</i> | <i>Poephila cincta cincta</i> <i>Rutidosia heterogama</i> <i>Thesium australe</i> <i>Xanthomyza phrygia</i> |

Other threatening processes

- High risk land use
- Lack of statutory protection

Highest priority biodiversity issues

Pest impacts on *Petrogale penicillata*

Pest management actions listed in recovery plans for *Boronia granitica*, *Grevillea beadleana*, *Poephila cincta cincta* and *Xanthomyza phrygia*

Impacts of feral goats



CRITICAL SYNOPSIS OF VERTEBRATE PEST MANAGEMENT REGIME

| | |
|--|---|
| Need for vertebrate pest management | Vertebrate pests pose a significant risk to the threatened and endemic plants and animals which occur within the Nadewar, Northern Complex, NSW mainland island. The NSW State Plan sets out natural resource management targets, one of which is that by 2015 there is a reduction in the impacts of invasive species. The NSW National Parks and Wildlife Service has a legal obligation to protect the Gibraltar Nature Reserve from such risks under the <i>National Parks and Wildlife Service 1974</i> provisions. The area also provides habitat for the Border Thick-tailed Gecko (<i>Underwoodisaurus sphyrurus</i>) which is listed as vulnerable under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> . |
| Planning instruments | The following management plans are relevant to the control of vertebrate pest species in the area; <ul style="list-style-type: none"> ▪ Gibraltar Nature Reserve Draft Plan of Management (NSW NPWS, 2009) ▪ Northern Tablelands Regional Pest Management Strategy (NPWS, 2007) |
| Management actions | The Gibraltar Nature Reserve Draft Plan of Management (NSW NPWS, 2009) indicates the following management measures to control concerning vertebrate pest species within the area; <ul style="list-style-type: none"> ▪ Identifies aerial shooting and ground trapping as the most effective means of goat control for a reserve such as this. ▪ Livestock from adjacent lands occasionally stray into parts of the reserve where fencing is inadequate or absent. Although not bound by legislation to provide for fencing of NPWS estate, the NPWS recognises that cooperative boundary fencing may enhance conservation values and resolve management problems within reserves |
| Monitoring regimes | The Northern Tablelands Regional Pest Management Strategy states that the following data is collected for monitoring purposes throughout the Region; <ul style="list-style-type: none"> ▪ aerial baiting runs and kilograms of bait dropped; ▪ aerial shooting runs and number of pest animals killed; ▪ surface and mound baiting locations; ▪ trapping and shooting success (eg. number of pigs or goats shot in each reserve) ▪ number of horses removed from reserves; ▪ wild dog incidents; ▪ wild dog predation areas, and, ▪ Judas collar tracking. <p>Fox control data from the Northern Tablelands Region is to be contributed to the NSW Natural Resources Monitoring, Evaluation and Reporting (MER) Strategy. This is a statewide strategy that has been developed for monitoring of NSW natural resources.</p> <p>No specific monitoring regimes have been identified within the Gibraltar Nature Reserve.</p> |
| Management responsibility | NSW National Parks and Wildlife Service Department of Environment and Climate Change Private landholders |
| Cost-benefit analysis | Northern Tablelands Regional Pest Management Strategy states that pest control will be targeted to species/locations where benefits will be greatest and that pest management will strive to strike a balance between cost efficiency, target specificity and animal welfare. Additionally, the NSW Invasive Species Plan highlights that pest management will be prioritized in areas where it provides the best cost to benefit ration in protecting biodiversity, productivity and community most threatened by invasive species. |
| Special features | Northern Tablelands Regional Pest Management Strategy is consistent with many of the principles of best practice pest management outlined in the report accompanying this fact sheet. |
| Summary / comments | Northern Tablelands Regional Pest Management Strategy outlines comprehensive pest management and monitoring activities for the region. This document could be used as a framework for other areas to plan regional pest management approaches. |

References:

Department of Environment and Climate Change NSW. (2007). Northern Tablelands Region Pest Management Strategy 2008-2011. DECC, Sydney, NSW.
<http://www.environment.nsw.gov.au/resources/pestsweeds/RegionalPestStrategyNTR.pdf>

NSW National Park and Wildlife Service (2009) Gibraltar Nature Reserve Draft Plan of Management. Department of Environment and Climate Change.
<http://www.environment.nsw.gov.au/resources/nature/09166GibralterNRdraftPOM.pdf>

NSW Department of Primary Industries (DPI) (2008) *NSW Invasive Species Plan 2008-2015*, NSW DPI, Orange.
Available on-line at: <http://www.dpi.nsw.gov.au/agriculture/pests-weeds/nsw-invasive-species-plan>

