

Wet Tropics of Queensland

MAINLAND ISLAND CHARACTERISTICS

Jurisdiction	Queensland
NRM Regions	Burdekin; Cape York; Cooperative Management Area; Northern Gulf; Wet Tropics
LGA	Cairns Regional, Cassowary Coast Regional, Charters Towers Regional, Cook Shire, Hinchinbrook Shire, Tablelands Regional, Wujal Wujal Shire, Yarrabah Shire
Size	1, 513, 000 hectares
Dominant Type	Rainforests and vine thickets
Land Tenure	World Heritage Area National Park Limited private landholdings
Surrounding Issues	Land use Weeds



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

Key Biodiversity Values

Key biodiversity and conservation values of WET TROPICS OF QUEENSLAND

- 110 threatened species
- 13 threatened communities
- 32 migratory species
- Very high species richness
- Very high endemism
- Wet Tropics of Queensland World Heritage Area
- Cape York Peninsula, Wet Tropics of Queensland, Daintree Lowland Rainforest, Tully Training Area National/Commonwealth Heritage Places
- 43 nationally important aquatic ecosystems
- Native vegetation present
- Vertebrate pest species present

CONSERVATION VALUE

Categories	Ranks/Scores
1 Biodiversity values	Very High (16)
2 Uniqueness	Very High (4)
3 Representativeness	High (3)
4 Adjacency	Very High (4)
5 Area to perimeter ratio	Very High (4)

THREAT STATUS

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



Key Threats and Impacts

Pest Species Present or Potentially Present

<input checked="" type="checkbox"/>	Cane toad	<input checked="" type="checkbox"/>	Feral cat	<input checked="" type="checkbox"/>	Feral pig	<input checked="" type="checkbox"/>	Rodents
<input type="checkbox"/>	Carp, European carp	<input checked="" type="checkbox"/>	Feral deer	<input checked="" type="checkbox"/>	Feral water buffalo	<input checked="" 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 type="checkbox"/>	Red-eared slider turtle	<input type="checkbox"/>	Other

Potential impacts of pest species on matters of National Environmental Significance

Feral water buffalo		European red fox	
<i>Arenga australasica</i>	<i>Crocodylus porosus</i>	<i>Bettongia tropica</i>	<i>Merops ornatus</i>
Cane toad		<i>Caretta caretta</i>	<i>Natator depressus</i>
<i>Dasyurus hallucatus</i>	<i>Litoria lorica</i>	<i>Dermochelys coriacea</i>	<i>Neochmia ruficauda ruficauda</i>
<i>Dasyurus maculatus gracilis</i>	<i>Merops ornatus</i>	<i>Erythroriorchis radiatus</i>	<i>Numenius minutus</i>
Feral cat		<i>Gallinago hardwickii</i>	<i>Rostratula australis</i>
<i>Apus pacificus</i>	<i>Neochmia ruficauda</i>	Feral pig	
<i>Eretmochelys imbricata</i>	<i>ruficauda</i>	<i>Archontophoenix myolensis</i>	<i>Diplazium cordifolium</i>
<i>Monarcha melanopsis</i>	<i>Petaurus gracilis</i>	<i>Arenga australasica</i>	<i>Eretmochelys imbricata</i>
Wild dog		<i>Bettongia tropica</i>	<i>Litoria nyakalensis</i>
<i>Casuarus casuarus johnsonii</i>	<i>Natator depressus</i>	<i>Caretta caretta</i>	<i>Natator depressus</i>
<i>Eretmochelys imbricata</i>	<i>Sterna albifrons</i>	<i>Casuarus casuarus johnsonii</i>	<i>Phaius pictus</i>
<i>Merops ornatus</i>		<i>Chelonia mydas</i>	<i>Phaius tancarvilleae</i>
		<i>Crepidium lawleri</i>	<i>Plesioneuron tuberculatum</i>
		<i>Dendrobium lithocola</i>	<i>Tylophora williamsii</i>
		<i>Dermochelys coriacea</i>	<i>Vrydagzynea paludosa</i>

Other threatening processes

- Situated on pest invasion front / range boundary
- High risk land use
- High density of Weeds of National Significance
- Lack of statutory protection

Highest priority biodiversity issues

Impacts of the feral pig, foxes and other pests identified as high impact (see below)

Pest management actions listed in recovery plans for marine turtles, *Bettongia tropica*, *Casuarus casuarus johnsonii*, *Litoria lorica*, *Litoria nyakalensis*, and *Petaurus gracilis*

Potential for climate change to increase pest threat



CRITICAL SYNOPSIS OF VERTEBRATE PEST MANAGEMENT REGIME

Need for vertebrate pest management	<p>Vertebrate pest species present a high risk to the biological and ecological values of the Wet Tropics World Heritage area. Climate change is expected to exacerbate the risk of these species becoming established (WTMA, 2007-2008) and is therefore an issue of increasing concern for the Area.</p> <p>Management of vertebrate pests is required in order to protect and conserve the natural heritage values of the Wet Tropics World Heritage Area in order to meet Australia's international obligations as a signatory nation to the World Heritage Convention. Management is further required to ensure the Australian World Heritage management principles are met as prescribed under the <i>Environment Biodiversity and Conservation Act 1999</i>.</p>
Planning instruments	<p>The following planning instruments contain provisions that directly or indirectly enable the control of pest species within the Wet Tropics World Heritage Area;</p> <ul style="list-style-type: none"> ▪ FNQ 2010 Regional Planning Process ▪ Wet Tropics Management Plan (1998) ▪ Wet Tropics Conservation Strategy (2004) ▪ Walking Strategy (2001) ▪ <i>Protection Through Partnerships</i> policy ▪ 14 Local Government Area Pest Management Plans ▪ Recovery Plans for frogs, northern bettong, mahogany glider, cassowary and spotted-tailed quoll (draft)
Management actions	<p>The Wet Tropics Vertebrate Pest Risk Assessment Scheme (Harrison & Congdon, 1998) identifies the high impact pest species (feral pigs, deer, ants, bees, fish and birds) within the region and recommends short term management goals. Management programs undertaken in the WHA in relation to these species include;</p> <ul style="list-style-type: none"> ▪ Pest education programs ▪ Eradication programs (trapping, shooting and fencing) ▪ Monitoring of eradication programs ▪ Surveys of pest distribution and abundance ▪ Research into control measures <p>Refer to annual State of the Wet Tropics Reports for further detail.</p>
Monitoring regimes	<p>Climate change/biodiversity monitoring plots have been established in the Wet Tropics by James Cook University and CSIRO researchers. The Wet Tropics plot network has the potential to provide the most comprehensive study of biological communities ever undertaken in Australia.</p> <p>Monitoring of environmental and economic impacts of plant and animal pest species has been undertaken throughout the WHA. Monitoring of species presence and distribution has also been undertaken regularly (refer to annual State of the Wet Tropics Reports)</p>
Management responsibility	<p>The Wet Tropics Management Authority reports to the Queensland and Commonwealth Governments on the management of the World Heritage Area.</p>
Cost-benefit analysis	<p>The Qld Pest Animal Strategy states that decisions regarding pest management must be made based on reliable information. The Strategy further indicates that part of the information gathering stage should include a cost/benefit analysis of various management options.</p>
Special features	<p>The Area holds great significance for local Aboriginal groups. As such a regional agreement between the Rainforest Aboriginal People and the Australian and Queensland Governments was established in 2005 which recognises the cultural values of the Wet Tropics, increases participation in decision making, and further established the Aboriginal Rainforest Council (ARC) and the Rainforest Aboriginal Advisory Committee RAAC).</p>
Summary / comments	<p>The Wet Tropics Management Authority provides an integrated approach to the management and conservation of the World Heritage Area. The Authority co-ordinates the policy and planning, research and monitoring, funding, education and interpretation, involvement of aboriginal communities and threat abatement for the area.</p>

References:

Annual State of the Wet Tropics Reports (http://www.wettropics.gov.au/res/res_report.html)

Anon (2002) *Periodic Report on the Application of the World Heritage Convention. SECTION II State of Conservation of specific World Heritage properties*. AUSTRALIA. Wet Tropics of Queensland.

Harrison D.A and Congdon B.C. (1998). *Wet Tropics Vertebrate Pest Risk Assessment Scheme. Consultants Report for the Wet Tropics Management Authority*. School of Tropical Biology, James Cook University, Cairns.
<http://www.wettropics.gov.au/res/downloads/VertReport.pdf>

Nigel E. Stork, Stephen M. Turton (Eds) (2008) *Living in a Dynamic Tropical Forest Landscape*. Blackwell Publishing, Ltd

Queensland Government (2002) *Queensland Pest Animal Strategy 2002-2006*, Queensland Government, Brisbane.

Wet Tropics Management Authority (2007-2008) *Climate Change in the Wet Tropics. Impacts and Responses*. State of the Wet Tropics Report 2007 -2008.

Wet Tropics Management Authority. *Protection through Partnerships*.

http://www.wettropics.gov.au/mwha/mwha_pdf/Strategies/ProtectionThroughPartnerships.pdf

Wet Tropics Regional Agreement (http://www.wettropics.gov.au/rah/rah_regional.html)

