

Russell River National Park Management Statement 2013

Park size:	5,420ha
Bioregion:	Wet Tropics
QPWS region:	Northern
Local government estate/area:	Cassowary Coast Regional
State electorate:	Mulgrave



Russell River National Park. Photo: NPRSR

Legislative framework

✓	<i>Environment Protection and Biodiversity Conservation Act 1999 (Cwlth)</i>
✓	<i>Land Protection (Pest and Stock Route Management) Act 2002</i>
✓	<i>Nature Conservation Act 1992</i>
✓	<i>Wet Tropics World Heritage Protection and Management Act 1998</i>

Plans and agreements

✓	Bonn Convention
✓	National recovery plan for the spectacled flying-fox <i>Pteropus conspicillatus</i>

Thematic strategies

✓	Level 2 Fire Strategy
✓	Level 2 Pest Strategy

Vision

Russell River National Park continues to provide valuable habitat for threatened species and ecological communities. It remains a scenic and natural landscape enjoyed by visitors for its low key, remote experience for limited nature based recreation.

Conservation purpose

Russell River National Park is a large coastal reserve that conserves an incredibly diverse mosaic of habitats. It provides a refuge for a wide range of plants and animals including the vulnerable estuarine crocodile, the endemic striped possum and the endangered swamp pitcher plant.

The park provides a range of habitats for threatened species and ecological communities and preserves an undeveloped stretch of picturesque tropical coastline and adjacent coastal ranges.

Protecting and presenting the park's values

Landscape

Russell River National Park encompasses a picturesque stretch of pristine coastal range approximately 80km south-east of Cairns. The park occupies a section of the Graham Range between the Russell River and the coast and is characterised by steep rainforest clad mountains, rocky ocean foreshores and mangrove lined estuarine river flats. The range rises to over 600m, within less than 3km from the coast.

Surrounding land use includes agriculture, mainly sugar cane, to the west, and the small village of Russell Heads to the north. Russell River National Park lies within close proximity to other protected areas in all directions with the Great Barrier Reef Marine Park to the east, Wooroonooran National Park to the west (approximately 500m at its closest point), Eubenangee Swamp National Park to the south (approximately 1.2km), and Malbon Thompson Forest Reserve on the opposite side of the Russell–Mulgrave River mouth to the north (approximately 1km).

These features—the Bruce Highway to the west, agricultural land to the south and Russell–Mulgrave rivers to the north and west—represent formidable barriers to wildlife movement in and out of the park.

While the coastal and adjacent range area in the east of the park exhibits and maintains high natural and ecological values, the western sections of the park both sides of the Russell River, have a long history of human disturbance. Historically constructed agricultural drains remain open and significant changes to the hydrology of the area have resulted.

Regional ecosystems

The remarkable diversity of Russell River National Park is exemplified by the 45 regional ecosystems found within the relatively small area (Table 1). Almost two-thirds of the park area conserves vegetation communities of conservation significance. These include 23 endangered regional ecosystems covering over one-third of the park. A further third of the total area is comprised of 19 regional ecosystems that have an of concern biodiversity status.

Melaleuca viridiflora wetlands and littoral rainforest are listed as endangered ecological communities under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

Native plants and animals

The swamp pitcher-plant *Nepenthes mirabilis* is a tropical carnivorous plant of the pitfall trap variety. Although the Bramston Beach population is listed as endangered in Queensland, it persists in stable numbers in isolated pockets where human access and potential unlawful collection is limited. The near threatened pimple fern *Microsorium membranifolium* has also been recorded within the park.

The endangered southern cassowary *Casuarius casuarius johnsonii* is commonly observed in the park.

Other wildlife of conservation significance includes the vulnerable beach stone-curlew *Esacus magnirostris* and estuarine crocodile *Crocodylus porosus*.

Aboriginal culture

The Traditional Owners have an ongoing connection to the area. No native title claims or determinations have been made.

Shared-history culture

Currently, there are no shared-history cultural heritage place records for the park.

Tourism and visitor opportunities

Russell River National Park has few visitor opportunities, primarily due to inaccessibility. The camping ground on Blue Metal Creek, at the southern end of the park, provides low-key camping in a remote setting and attracts a moderate number of more adventurous visitors. Access to the camping ground is by four-wheel-drive vehicle only, approximately 7km from Bramston Beach.

Most of the park can be accessed via boat from Bramston Beach or Russell River. From the water, visitors can experience inspiring views of the rugged rainforest clad mountains dropping steeply to the ocean—the union of two World Heritage-listed protected areas.

Education and science

The park provides researchers with access to the southern population of the swamp pitcher-plant *Nepenthes mirabilis*. Investigation into the components of the park at higher altitudes, over 600m, may provide valuable vegetation data.

Other key issues and responses

Pest management

Pest plants

Pond apple *Annona glabra*, a class 2 declared pest plant and Weed of National Significance, presents a considerable threat to the freshwater wetland, riverine and mangrove communities of Russell River National Park. Littoral areas support significant dense stands of pond apple. It is also scattered sporadically throughout the freshwater wetlands, but is expected to dominate without management intervention. The southern cassowary is known to feed on the fallen fruits of pond apple.

Olive hymenachne *Hymenachne amplexicaulis* occurs in many of the drains and creeks associated with the Russell River on the western side of the park. Management of this declared class 2 pest plant is very challenging due to difficulties in accessing infestations. A constant source of olive hymenachne from agricultural land upstream of the park also impedes positive management outcomes. Left unmanaged, olive hymenachne will choke waterways altering hydrology and outcompeting native plants.

Harungana *Harungana madagascariensis* is a tropical tree or shrub that is invading native rainforest vegetation in North Queensland. It has the potential to establish extensive stands that exclude native plants and alter habitat.

Pest animals

Feral pigs *Sus scrofa* are present in Russell River National Park in substantial numbers. Disturbance from foraging pigs is most noticeable in freshwater wetlands, particularly during the dry season when their wet season food resources, often widely dispersed, become scarce across the landscape. Reactive pig management occurs as required in and around the camp sites. A coordinated multi-tenure pig trapping program occurs near the boundaries of the park, largely on agricultural land.

Fire management

Ecological fire management occurs in the dry forest communities within the park. The primary objective for these communities is to maintain the integrity, structure and health of the vegetation, thereby increasing resilience to events such as cyclones and pest plant invasion.

Fuel reduction burns occur around the camp sites to reduce the possibility of wildfire.

Management directions

Desired outcomes	Actions and guidelines
Landscape The scenic amenity of the park is maintained and protected.	A1. Design and locate any new infrastructure to have minimum visual impact in the landscape, if required.
Native plants and animals The degraded areas of the park, primarily the northern and western edges are restored. Knowledge of plants and animals are increased, leading to improved park management.	A2. The fire regime is undertaken to maintain resilience of dry and swampy forest communities. A3. Address site degradation by revegetating areas of past disturbance A4. Undertake systematic plant and animal surveys to attain a comprehensive species inventory. A5. Monitor populations of threatened species to assess population trends.
Pest management Pest plants are controlled and where feasible eradicated.	A6. Develop a park specific management program to manage pond apple, olive hymenachne, thunbergia and harungana reflecting the difficulty of access to the park and focused on key threats to ecosystems.
Aboriginal culture Knowledge of Indigenous culture is sufficient for management purposes.	A7. Liaise with Traditional Owner groups to identify and protect the cultural heritage values of the park and management practices where possible.

Tables – Conservation values management

Table 1: Endangered and of concern regional ecosystems

Regional ecosystem	Description	Biodiversity status
7.1.2a	Samphire flats with open forbland to sparse forbland of <i>Halosarcia</i> spp., and <i>Suaeda australis</i> . Includes bare saltpans	Of concern
7.1.4b	Simple mesophyll vine forest with <i>Barringtonia racemosa</i> and/or <i>Hibiscus tiliaceus</i> , +/- <i>Heritiera littoralis</i> on mangrove fringes. Brackish zones	Endangered
7.2.1a	Complex mesophyll or mesophyll vine forest on sands of beach origin	Endangered
7.2.1f	Simple notophyll vine forest with <i>Blepharocarya involucrigera</i> , <i>Acacia celsa</i> , <i>Flindersia bourjotiana</i> , <i>Syzygium angophoroides</i> , <i>Dillenia alata</i> , <i>Grevillea baileyana</i> , <i>Syzygium kuranda</i> , <i>Calophyllum sil.</i> Sands of beach origin	Endangered
7.2.1i	Mesophyll vine forest, on sands of beach origin	Endangered
7.2.3b	<i>Corymbia tessellaris</i> and <i>Corymbia clarksoniana</i> (or <i>C. intermedia</i>), woodland to open-forest on dune sands	Of concern
7.2.3d	<i>Corymbia intermedia</i> open-forest on dune sands	Of concern
7.2.3e	<i>Corymbia intermedia</i> open-forest, with a very well developed vine forest understorey (due to infrequent burning), on dune sands	Of concern

Regional ecosystem	Description	Biodiversity status
7.2.4m	<i>Acacia celsa</i> open-forest to closed-forest on weathered relict beach ridges	Of concern
7.2.5a	Simple mesophyll to notophyll vine forest on sands of beach origin, with <i>Syzygium forte</i> subsp. <i>forte</i> , <i>Buchanania arborescens</i> , <i>Pleiogynium timorense</i> , <i>Dillenia alata</i> , <i>Litsea fawcettiana</i> , and <i>Chionanthus ramiflora</i>	Of concern
7.2.7a	Shrubland, grassland, woodland and open-forest, on strand and foredunes, with species including <i>Casuarina equisetifolia</i> , <i>Acacia crassicaarpa</i> , <i>Syzygium forte</i> subsp. <i>forte</i> , and <i>Calophyllum inophyllum</i>	Endangered
7.2.8	<i>Melaleuca leucadendra</i> open-forest to woodland on sands of beach origin	Endangered
7.2.9a	<i>Melaleuca quinquenervia</i> open forest to woodland and shrubland, on dune swales and sandplains	Endangered
7.2.9c	<i>Lepironia articulata</i> sedgeland in peaty dune swales and dune plains	Endangered
7.3.3a	Mesophyll vine forest with <i>Archontophoenix alexandrae</i> , on poorly drained alluvial plains	Endangered
7.3.3c	Mesophyll vine forest with dominant <i>Syzygium tierneyanum</i> and/or <i>Barringtonia racemosa</i> and sub-canopy dominated by <i>Archontophoenix alexandrae</i> , on poorly drained alluvial plains	Endangered
7.3.4	Mesophyll vine forest with <i>Licuala ramsayi</i> , on poorly drained alluvial plains and alluvial areas of uplands	Endangered
7.3.5a	<i>Melaleuca quinquenervia</i> open-forest, woodland and shrubland, on poorly drained alluvial plains	Endangered
7.3.5d	<i>Melaleuca quinquenervia</i> and <i>M. viridiflora</i> open-woodland with a dense grassy ground layer, usually dominated by <i>Ischaemum australe</i> and <i>Isachne globosa</i> , in peaty swamps	Endangered
7.3.8a	<i>Melaleuca viridiflora</i> open-forest to open-woodland, on poorly drained alluvial plains. Includes areas of natural invasion onto former grasslands	Endangered
7.3.10a	Mesophyll vine forest on moderately to poorly-drained alluvial plains, of moderate fertility	Endangered
7.3.10c	Mesophyll vine forest with scattered <i>Archontophoenix alexandrae</i> in the sub-canopy, of seasonally inundated alluvial plains	Endangered
7.3.10d	Open areas in vine forests on alluvial plains, dominated by sprawling vines, with emergent vine-draped trees or clumps of trees. Vines commonly include <i>Merremia peltata</i>	Endangered
7.3.17	Complex mesophyll vine forest, on well-drained alluvium of high fertility	Endangered
7.3.19e	<i>Corymbia intermedia</i> open forest with a very well developed vine forest understorey, on well-drained alluvium	Of concern
7.3.25a	<i>Melaleuca leucadendra</i> open forest and woodland, on stream levees and prior streams	Of concern
7.3.28a	Open water within natural non-tidal rivers	Endangered
7.3.31	<i>Lepironia articulata</i> sedgeland to open sedgeland of permanently to semi-permanently inundated peat swamps of alluvial plains	Endangered

Regional ecosystem	Description	Biodiversity status
7.11.18b	<i>Corymbia intermedia</i> open-forest to tall open-forest with a very well developed vine forest understorey on coastal metamorphic headlands and near-coastal foothills	Of concern
7.11.18c	<i>Corymbia intermedia</i> open-forest to tall open-forest on coastal metamorphic headlands and near-coastal foothills, on amphibolite	Of concern
7.11.18d	<i>Corymbia intermedia</i> open-forest to tall open-forest with a very well developed vine forest understorey on coastal headlands and near-coastal foothills, on amphibolite	Of concern
7.11.24a	Open areas in vine forests, dominated by vines, presumed to originate from cyclone damaged Type 2a forests (where the entire canopy has been destroyed), on foothills of metamorphic (excluding amphibolite) coastal ranges, often steep and exposed	Of concern
7.11.24b	Open areas in vine forests, dominated by vines, presumed to originate from cyclone damaged Type 2a forests (where the entire canopy has been destroyed), on foothills of coastal ranges on amphibolite, often steep and exposed	Of concern
7.11.24c	Areas of mesophyll to notophyll vine forest suffering from extreme wind damage where at least half the canopy has been destroyed, on foothills of coastal metamorphic ranges (excluding amphibolite), often steep and exposed	Of concern
7.11.25a	Mesophyll to notophyll vine forest of very wet and wet lowlands and foothills on amphibolite	Of concern
7.11.25b	Mesophyll vine forest recovering from disturbance, with <i>Acacia celsa</i> canopy or emergents of very wet and wet lowlands and foothills, on amphibolite	Of concern
7.11.39a	<i>Themeda triandra</i> tussock grassland in the Black Mountain area on metamorphics	Endangered
7.12.23a	<i>Corymbia intermedia</i> open-forest to tall open-forest, on coastal granite and rhyolite headlands and near-coastal foothills	Endangered
7.12.23b	<i>Corymbia intermedia</i> open-forest to tall open forest with a very well developed vine forest understorey, on coastal granite and rhyolite headlands and near-coastal foothills	Endangered
7.12.37i	Bare rock pavements associated with sedgeland and/or <i>Allocasuarina</i> spp. shrubland on seepage areas of wet lowlands, uplands and highlands of the eastern escarpment and central range (excluding Hinchinbrook Island and Bishops Peak)	Of concern
7.12.40a	Open areas in vine forests, dominated by sprawling vines, commonly <i>Merremia peltata</i> and other vine species, presumed to mostly originate from cyclone damaged 7.12.1a (where the entire canopy has been destroyed.). Granite and rhyolite foothills	Of concern
7.12.54g	Bare rock of coastal headlands on granite and rhyolite	Of concern

Table 2: Species of conservation significance

Scientific name	Common name	Nature Conservation Act 1992 status	Environment Protection and Biodiversity Conservation Act 1999 status	Back on Track status
Animals				
<i>Casuarius casuarius johnsonii</i>	southern cassowary	Endangered	Endangered	Critical
<i>Crocodylus porosus</i>	estuarine crocodile	Vulnerable	-	Low
<i>Esacus magnirostris</i>	beach stone-curlew	Vulnerable	-	High
<i>Pteropus conspicillatus</i>	spectacled flying-fox	Least Concern	Vulnerable	High
Plants				
<i>Microsorium membranifolium</i>	pimple fern	Near threatened	-	-
<i>Nepenthes mirabilis</i>	swamp pitcher-plant	was Endangered until 8/9/2006, now least concern	-	-

Table 3: Species listed in international agreements

Scientific name	Common name	BONN	CAMBA	JAMBA	ROKAMBA
<i>Crocodylus porosus</i>	estuarine crocodile	✓	-	-	-
<i>Symposiarchus trivirgatus</i>	spectacled monarch	✓	-	-	-

BONN – Bonn Convention

CAMBA – China–Australia Migratory Bird Agreement

JAMBA – Japan–Australia Migratory Bird Agreement

ROKAMBA – Republic of Korea–Australia Migratory Bird Agreement