

# Koombooloomba National Park, Forest Reserve and Conservation Park Management Statement 2013

|                                     |                     |
|-------------------------------------|---------------------|
| Koombooloomba National Park:        | 29,258ha            |
| Koombooloomba South Forest Reserve: | 3,019ha             |
| Koombooloomba Conservation Park:    | 37ha                |
| Bioregion:                          | Wet Tropics         |
| QPWS region:                        | Northern            |
| Local government estate/area:       | Tablelands Regional |
| State electorate:                   | Kennedy             |



Boyd's forest dragon *Hypsilurus boydii*. Photo: NPRSR.

## Legislative framework

|   |  |
|---|--|
| ✓ | <i>Aboriginal Cultural Heritage Act 2003</i>                                 |
| ✓ | <i>Environment Protection and Biodiversity Conservation Act 1999 (Cwlth)</i> |
| ✓ | <i>Land Protection (Pest and Stock Route Management) Act 2002</i>            |
| ✓ | <i>Native Title Act 1993 (Cwlth)</i>   |
| ✓ | <i>Nature Conservation Act 1992</i>  |
| ✓ | <i>Wet Tropics World Heritage Protection and Management Act 1993</i>         |

## Plans and agreements

|   |   |
|---|---|
| ✓ | Bonn Convention   |
| ✓ | China–Australia Migratory Bird Agreement  |
| ✓ | Japan–Australia Migratory Bird Agreement  |
| ✓ | National recovery plan for the yellow-bellied glider (Wet Tropics) <i>Petaurus australis</i> unnamed subspecies                   |
| ✓ | Recovery Plan for the southern cassowary <i>Casuarius casuarius johnsonii</i> 2001–2005   |
| ✓ | Recovery Plan for the stream-dwelling rainforest frogs of the Wet Tropics biogeographic region of north-east Queensland 2000–2004 |
| ✓ | Republic of Korea–Australia Migratory Bird Agreement  |
| ✓ | Wet Tropics Management Plan 1998  |
| ✓ | Wet Tropics of Queensland World Heritage Area Regional Agreement  |

## Thematic strategies

|   |                                  |
|---|----------------------------------|
| ✓ | Level 2 Fire Management Strategy |
| ✓ | Level 2 Pest Management Strategy |

## Vision

Koombooloomba National Park, forest reserve and conservation park lie within the traditional lands of the Jirrbal people and remain part of their cultural landscape.

These areas are managed to maintain and enhance their natural, cultural and scenic values while providing a location for low-key, nature-based visitor activities.

## Conservation purpose

Koombooloomba State Forest was converted from timber reserve on 16 March 1967 and, over time, more parcels were added. Parts of the State forest were included within the Wet Tropics World Heritage Area in 1988. On 14 September 2001, 29,281ha were converted to forest reserve with the remaining 3,019ha following on 18 July 2008. On 19 November 2010, the forest reserve was converted to national park. A small area of electricity reserve near the dam wall was converted to conservation park at the same time.

These areas encompass a continuous cross-section of wet tropical forest types from high altitude rainforest to open woodlands over a very steep rainfall gradient. The ecotones along this gradient add significantly to the variety of habitat types and the range of plant and animal species present.

## Protecting and presenting the park's values

### Landscape

Located west of the Cardwell Range watershed, the planning area has many significant creeks, some of which are perennial, that drain the area towards the Tully River. The more significant creeks—Koombooloomba Creek, Cameron Creek and Costigan Creek—flow into the Tully River above the Koombooloomba Dam. Nitchaga Creek flows into the Tully River below the dam.

The planning area stretches for approximately 17km over undulating lands from over 800m in the eastern ranges, to slightly lower elevations in the west. Rainfall decreases dramatically with increasing distance from the coast.

Electricity corridors dissect the planning area. Evidence of human settlement is apparent near the dam.

Past grazing practices are evident throughout the planning area in the form of fencing remnants and cattle yards.

Forest types within the park are influenced by climate, geology and resulting soils, and altitude. The dominant granite rocks are acidic and have produced less fertile soils than those found in the basalt areas of the Atherton and Evelyn tablelands. Some of the northern and western sections contain soils classified as rhyolitic hills and alluvium. Basaltic soils also appear in the north-west section around George Creek.

Cattle grazing occurs on adjoining properties. Surrounding protected area includes Kirrama, Tully Gorge and Tully Falls national parks to the north, east and south. Yourka Reserve is a 43,500ha nature reserve owned and managed by the Australian Bush Heritage Fund. It adjoins the central western boundary of the planning area.

### Regional ecosystems

Thirty-nine regional ecosystems are conserved within the planning area. Of these, 19 regional ecosystems (20.5 per cent of the total area) are endangered. A further 10 regional ecosystems (8.6 per cent of the total area) are of concern communities (Table 1).

The central and western parts of the planning area are in the rain shadow of the Cardwell Range. Endangered tall open forest grows on granitic and rhyolitic soils. The forests contain rose gum *Eucalyptus grandis*, red mahogany *E. resinifera*, pink bloodwood *Corymbia intermedia*, turpentine *Syncarpia glomulifera*, forest oak *Allocasuarina torulosa* and stringybark pine *Callitris macleayana*. Tall open forest is fairly abundant in south-east Australia but in the Wet Tropics is limited to a narrow, broken strip 400km long, bordering the western edge of the rainforest.

Woodlands of Queensland stringybark *E. reducta*, turpentines and black she-oak *A. littoralis* grow in the driest parts, further to the west.

### Native plants and animals

The vegetation becomes drier on an east to west gradient. Eastern parts of the planning area are closer to the coast and receive the prevailing moist winds. These conditions promote the growth of upland rainforest.

Two endangered, four vulnerable and 10 near threatened plant species are recorded from the planning area (Table 2).

Important habitat for the vulnerable yellow-bellied glider northern subspecies *Petaurus australis* unnamed subspecies and for the endangered southern cassowary *Casuarius casuarius johnsonii* is conserved in the planning area. Seven endangered, four vulnerable, and 13 near threatened species of animals are recorded from the planning area (Table 2).

Species listed in international agreements are shown in Table 3.

## Aboriginal culture

The Jirrbal people are the Traditional Owners for the planning area. The rainforest is rich in resources important to the Jirrbal people.

## Shared-history culture

Gold was found on the headwaters of the Tully River around 1890. The area officially produced 300 ounces of gold before attention was turned to timber harvesting from the adjacent forests.

In 1948, to meet increasing electricity needs after World War II, the Tully River was selected to provide hydro-electric power. In the 1950s Koombooloomba Dam was constructed, followed by the construction of two separate hydro-electric stations. The small town of Koombooloomba housed workers and their families during the dam's construction. Most buildings were relocated once the project had finished. The current conservation park camping area is situated on the old cricket oval.

In 1951, logging of all valuable timber commenced in the proposed dam site. From 1952 onwards, timber was harvested throughout Koombooloomba State Forest (now national park). From 1968 to 1980, rainforest timber experimental plots were established by the Queensland Government. Extensive areas of rainforest have been logged. Logging ceased in rainforest areas in 1988 upon World Heritage listing.

Drier, western parts of the national park have been grazed.

The Department of Defence has historically used the planning area for training exercises.

## Tourism and visitor opportunities

Camping is available in two camping areas on the shores of Koombooloomba Dam. Bush camping is also available along the internal Wall Creek and Nitchaga Creek roads, subject to park-specific conditions.

Access to the main camping areas at the dam is via a gravel road. Bush camps along Nitchaga and Wall Creek roads can be reached by four-wheel-drive vehicles only. The roads are not accessible for caravans, buses and motor homes.

## Education and science

Various universities undertake research upland rainforests and tall open forests in the planning area.

## Partnerships

The planning area is managed on a day-to-day basis by the Queensland Parks and Wildlife Service (QPWS). Management of the World Heritage area is coordinated through a partnership between the Commonwealth and Queensland governments, the Jirrbal people and the wider community.

## Other key issues and responses

### Pest management

Pest plant infestations in the planning area are prioritised having regard to their threat level and the feasibility of control actions.

Lantana *Lantana camara*, a class 3 pest plant and a Weed of National Significance, is present in all forest areas in differing densities. It is particularly thick in established infestations on basalt soils near Nitchaga Creek. In these areas, its capacity to significantly alter the understorey of an endangered regional ecosystem accords it a high priority for treatment.

*Stevia ovata* is an emerging threat in northern section of the planning area. It is confined to within 50m of power line and former power line corridor areas.

Siam weed *Chromolaena odorata* is a class 1 declared pest plant found on neighbouring Yourka Station located to the south-south-west of Koombooloomba National Park. Due to the network of power lines, fence lines and their associated maintenance vehicle tracks, there is potential for this pest plant to be spread by human vectors.

Stray cattle *Bos* spp. from neighbouring properties frequent areas in the northern section of the planning area.

Feral pig *Sus scrofa* disturbance is common.

Root-rot dieback *Phytophthora cinnamomi* has been recorded in the planning area. Patch deaths from this pathogen are part of a current monitoring program supported by James Cook University.

## Fire management

A statement of fire management intent is in place for the planning area. Planned burns are implemented to maintain tall open forest structure in certain areas.

Long term monitoring plots in an area known as 'Koombooloomba Pocket' exist to monitor the impacts of fire in this isolated open forest remnant surrounded by rainforest.

## Other management issues

Transmission corridors managed and maintained by electricity industry entities exist within the planning area. The Chalumbin electricity substation is situated on separate tenure in the north-western area of the park. Feeder lines in and out of the substation traverse the planning area.

The Culpa Road remains closed ; however there is occasional interest from potential user groups to reopen this track. The closed road is regenerating and decreasing the effect of its earlier linear corridor fragmentation of the forest.

Quarries associated with the construction of Koombooloomba Dam and road construction and maintenance thereafter remain as historical relics in the landscape.

The dam which is not part of the planning area, but is encircled by it is also used for recreational fishing and water activities and attracts the majority of people to visit the area.

## Management directions

| Desired outcomes  | Actions and guidelines  |
|---|---|
| <p><b>Landscape</b></p> <p>The scenic landscape values of the park are protected and areas of natural vegetation are maintained and enhanced.</p>   | <p>A1. Address rainforest expansion into tall open forest, particularly in Koombooloomba Pocket (just west of the dam).</p>   |
| <p><b>Native plants and animals</b></p> <p>Information on the occurrence and distribution of vegetation communities and the threats to them continues to be sufficient for management purposes.</p>   | <p>A2. Monitor the health and abundance of key plants and animals including <i>Triplarina nitchaga</i>, <i>Dendrobium callitrophilum</i>, <i>Huperzia</i> species and the endangered northern bettong.</p>  |
| <p><b>Aboriginal culture</b></p> <p>Places of Aboriginal cultural significance are identified, preserved and protected from natural degradation, visitor impacts and management actions in accordance with the wishes and advice of Traditional Owners.</p> | <p>A3. Liaise with Traditional Owners who have custodial responsibility for Aboriginal places of cultural significance to help determine appropriate management provisions, prior to the start of any operations near those sites.</p>  |
| <p><b>Tourism and visitor opportunities</b></p> <p>Visitor facilities provide for a range of sustainable visitor opportunities and experiences consistent with the natural, cultural and World Heritage values of the area.</p>                             | <p>A4. Camping area and built infrastructure at Koombooloomba Dam are maintained at a level which provides a nature based semi-remote camping and day use experience.</p> <p>A5. Wall Creek and Nitchaga Creek roads are maintained to enable for four wheel drive vehicle access in favourable conditions.</p> |

## Tables – Conservation values management

**Table 1: Endangered and of concern regional ecosystems**

| Regional ecosystem number | Description   | Biodiversity status |
|---------------------------|---|---------------------|
| 7.3.5                     | <i>Melaleuca quinquenervia</i> and/or <i>Melaleuca cajuputi</i> closed-forest to shrubland on poorly drained alluvial plains  | Endangered          |
| 7.3.8                     | <i>Melaleuca viridiflora</i> +/- <i>Eucalyptus</i> spp. +/- <i>Lophostemon suaveolens</i> open-forest to open-woodland, on poorly drained alluvial plains   | Endangered          |
| 7.3.16                    | <i>Eucalyptus platyphylla</i> woodland to open-forest, on alluvial plains   | Endangered          |
| 7.3.19                    | <i>Corymbia intermedia</i> or <i>C. tessellaris</i> +/- <i>Eucalyptus tereticornis</i> open-forest (or vine forest with these species as emergents), on well-drained alluvium   | Of concern          |
| 7.3.26                    | <i>Casuarina cunninghamiana</i> woodland to open-forest on alluvium fringing streams  | Endangered          |
| 7.3.28                    | Rivers and streams including riparian herb field and shrubland on river and stream bed alluvium   | Endangered          |
| 7.3.36                    | Complex mesophyll vine forest or simple notophyll vine forest of high rainfall  | Endangered          |
| 7.3.39                    | <i>Eucalyptus tereticornis</i> +/- <i>E. platyphylla</i> +/- <i>Corymbia intermedia</i> +/- <i>Lophostemon suaveolens</i> open-woodland to open-forest, and associated sedgelands and grasslands, on broad drainage depressions of uplands                                    | Endangered          |
| 7.3.42                    | <i>Eucalyptus grandis</i> open-forest to woodland (or vine forest with emergent <i>E. grandis</i> ), on alluvium  | Endangered          |
| 7.3.43                    | <i>Eucalyptus tereticornis</i> open-forest to woodland on uplands on well drained alluvium  | Endangered          |
| 7.3.46                    | <i>Lophostemon suaveolens</i> open-forest to woodland, on alluvial plains   | Endangered          |
| 7.3.49                    | Notophyll vine forest on rubble terraces of streams   | Of concern          |
| 7.8.3                     | Complex semi-evergreen notophyll vine forest of uplands on basalt   | Endangered          |
| 7.8.4                     | Simple to complex notophyll vine forest of cloudy wet highlands on basalt   | Endangered          |
| 7.8.7                     | <i>Eucalyptus tereticornis</i> open-forest to tall open-forest, and associated grasslands, predominantly on basalt uplands  | Endangered          |
| 7.8.15                    | <i>Eucalyptus grandis</i> open-forest to woodland (or vine forest with <i>E. grandis</i> emergents), on basalt  | Endangered          |
| 7.8.16                    | <i>Eucalyptus resinifera</i> open-forest to woodland, on basalt   | Endangered          |
| 7.8.18                    | <i>Corymbia intermedia</i> and/or <i>Lophostemon suaveolens</i> +/- <i>Allocasuarina torulosa</i> open-forest to woodland, on basalt  | Of concern          |
| 7.12.9                    | <i>Acacia celsa</i> open-forest to closed forest, on granites and rhyolites   | Of concern          |
| 7.12.21                   | <i>Eucalyptus grandis</i> (rose gum) open-forest to woodland, or <i>Corymbia intermedia</i> (pink bloodwood), <i>E. pellita</i> (red stringybark), and <i>E. grandis</i> , open-forest to woodland, (or vine forest with these species as emergents). Granites and rhyolites. | Endangered          |

| Regional ecosystem number | Description   | Biodiversity status |
|---------------------------|---|---------------------|
| 7.12.22                   | <i>Eucalyptus resinifera</i> (red mahogany) +/- <i>Eucalyptus portuensis</i> (white mahogany) +/- <i>Syncarpia glomulifera</i> (turpentine) tall open-forest to tall woodland (or vine forest with these species as emergents). Granite and rhyolite uplands and highlands. | Endangered          |
| 7.12.37                   | Rock pavements and seepage areas of wet lowlands, uplands and highlands of the eastern escarpment and central range (excluding Hinchinbrook Island and Bishops Peak) on granite and rhyolite, with <i>Allocasuarina</i> spp. shrubland                                      | Of concern          |
| 7.12.48                   | Wind-sheared notophyll vine forest on exposed granite and rhyolite ridge-crests and steep slopes  | Of concern          |
| 7.12.50                   | Simple microphyll vine-fern forest of highlands on granite and rhyolite   | Of concern          |
| 7.12.52                   | <i>Eucalyptus resinifera</i> , <i>Corymbia intermedia</i> , <i>Allocasuarina littoralis</i> , <i>Syncarpia glomulifera</i> , <i>E. drepanophylla</i> +/- <i>E. reducta</i> woodland, of dry to moist hills on granite and rhyolite  | Of concern          |
| 7.12.57                   | Shrubland and low woodland mosaic with <i>Syncarpia glomulifera</i> , <i>Corymbia abergiana</i> , <i>Eucalyptus portuensis</i> , <i>Allocasuarina littoralis</i> , and <i>Xanthorrhoea johnsonii</i> , on moist and dry uplands and highlands on granite and rhyolite       | Of concern          |
| 7.12.60                   | <i>Melaleuca viridiflora</i> +/- <i>Corymbia clarksoniana</i> +/- <i>Eucalyptus platyphylla</i> woodland to open-forest, on granite and rhyolite  | Endangered          |
| 7.12.61                   | <i>Eucalyptus tereticornis</i> +/- <i>E. granitica</i> woodland to open-forest of foothills and uplands on granite and rhyolite   | Of concern          |
| 7.12.68                   | Complex notophyll vine forest of cloudy moist to wet highlands on granite   | Endangered          |

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 |
|----------------------------------|------------------------|-------------------------------------|--|----------------------|
| <b>Plants</b>                    |                        |                                     |  |                      |
| <i>Alectryon semicinereus</i>    | -                      | Near threatened                     | -  | Low                  |
| <i>Aponogeton bullosus</i>       | -                      | Endangered                          | Endangered   | High                 |
| <i>Calochlaena villosa</i>       | -                      | Near threatened                     | -  | Low                  |
| <i>Dendrobium callitrophilum</i> | cypress orchid         | Vulnerable                          | Vulnerable   | Data deficient       |
| <i>Dryopteris hasseltii</i>      | -                      | Near threatened                     | -  | Low                  |
| <i>Endiandra dichrophylla</i>    | coach walnut           | Near threatened                     | -  | Low                  |
| <i>Helicia lamingtoniana</i>     | -                      | Near threatened                     | -  | Low                  |
| <i>Huperzia filiformis</i>       | rat's tail tassel fern | Endangered                          | Endangered   | Critical             |

| Scientific name  | Common name                                | Nature Conservation Act 1992 status | Environment Protection and Biodiversity Conservation Act 1999 status | Back on Track status |
|--|--|-------------------------------------|--|----------------------|
| <i>Huperzia phlegmaria</i>                                 | coarse tassel fern                         | Near threatened                     | -  | High                 |
| <i>Huperzia tetrastichoides</i>                            | -  | Vulnerable                          |  | High                 |
| <i>Oldenlandia polyclada</i>                               | -  | Near threatened                     | -  | Low                  |
| <i>Pandanus gemmifer</i>                                   | -  | Near threatened                     | -  | Low                  |
| <i>Revwattsia fragilis</i>                                 | -  | Vulnerable                          | -  | Low                  |
| <i>Thaleropia queenslandica</i>                            | pink myrtle                                | Near threatened                     | -  | Low                  |
| <i>Triplarina nitchaga</i>                                 | -  | Vulnerable                          | Vulnerable   | Low                  |
| <i>Waterhousea mulgraveana</i>                             | -  | Near threatened                     | -  | Low                  |
| <b>Animals</b>   |  |                                     |  |                      |
| <i>Accipiter novaehollandiae</i>                           | grey goshawk                               | Near threatened                     | -  | Low                  |
| <i>Aerodramus terraereginae</i>                            | Australian swiftlet                        | Near threatened                     | -  | Low                  |
| <i>Antechinus godmani</i>                                  | Atherton antechinus                        | Near threatened                     | -  | Low                  |
| <i>Bettongia tropica</i>                                   | northern bettong                           | Endangered                          | Endangered   | Critical             |
| <i>Casuarius casuarius johnsonii</i> (southern population) | southern cassowary (southern population)   | Endangered                          | Endangered   | Critical             |
| <i>Cyclopsitta diophthalma macleayana</i>                  | Macleay's fig-parrot                       | Vulnerable                          | -  | Low                  |
| <i>Dasyurus maculatus gracilis</i>                         | spotted-tailed quoll (northern subspecies) | Endangered                          | Endangered   | Critical             |
| <i>Delma mitella</i>                                       | -  | Near threatened                     | -  | Low                  |
| <i>Dendrolagus lumholtzi</i>                               | Lumholtz's tree-kangaroo                   | Near threatened                     | -  | Low                  |
| <i>Erythrotriorchis radiatus</i>                           | red goshawk                                | Endangered                          | Vulnerable   | High                 |
| <i>Eulamprus tigrinus</i>                                  | -  | Near threatened                     | -  | Low                  |
| <i>Glaphyromorphus mjobergi</i>                            | -  | Near threatened                     | -  | Low                  |
| <i>Hemibelideus lemuroides</i>                             | lemuroid ringtail possum                   | Near threatened                     | -  | Low                  |
| <i>Kerivoula papuensis</i>                                 | golden-tipped bat                          | Near threatened                     | -  | Medium               |
| <i>Lampropholis robertsi</i>                               | -  | Near threatened                     | -  | Low                  |



| Scientific name                          | Common name                                 | Nature Conservation Act 1992 status | Environment Protection and Biodiversity Conservation Act 1999 status | Back on Track status |
|--|---|-------------------------------------|--|----------------------|
| <i>Litoria rheocola</i>                  | common mistfrog                             | Endangered                          | Endangered   | Low                  |
| <i>Litoria serrata</i>                   | tapping green eyed frog                     | Near threatened                     | -  | Low                  |
| <i>Murina florium</i>                    | tube-nosed insectivorous bat                | Vulnerable                          | -  | High                 |
| <i>Ninox rufa queenslandica</i>          | rufous owl (southern subspecies)            | Vulnerable                          | -  | Low                  |
| <i>Nyctimystes dayi</i>                  | Australian laceid                           | Endangered                          | Endangered   | Low                  |
| <i>Petaurus australis</i> unnamed subsp. | yellow-bellied glider (northern subspecies) | Vulnerable                          | Vulnerable   | Critical             |
| <i>Pseudochirops archeri</i>             | green ringtail possum                       | Near threatened                     | -  | Low                  |
| <i>Pseudochirulus herbertensis</i>       | Herbert River ringtail possum               | Near threatened                     | -  | Low                  |
| <i>Pteropus conspicillatus</i>           | spectacled flying-fox                       | Least concern                       | Vulnerable   | High                 |
| <i>Taudactylus acutirostris</i>          | sharp snouted dayfrog                       | Endangered                          | Extinct  | Low                  |

**Table 3: Bird species listed in international agreements**

| Scientific name                  | Common name               | BONN | CAMBA | JAMBA | ROKAMBA |
|----------------------------------|---------------------------|------|-------|-------|---------|
| <i>Coracina tenuirostris</i>     | cicadabird                | -    |       | ✓     |         |
| <i>Gallinago hardwickii</i>      | Latham's snipe            | ✓    | ✓     | ✓     | ✓       |
| <i>Hirundapus caudacutus</i>     | white-throated needletail | -    | ✓     | ✓     | ✓       |
| <i>Merops ornatus</i>            | rainbow bee-eater         | -    | -     | ✓     | -       |
| <i>Monarcha melanopsis</i>       | black-faced monarch       | ✓    | -     | -     | -       |
| <i>Rhipidura rufifrons</i>       | rufous fantail            | ✓    | -     | -     | -       |
| <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