Crater Lakes National Park

Management Statement 2013



Prepared by: Queensland Parks & Wildlife Service (QPWS), Department of Environment, Science and Innovation © State of Queensland 2024

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The Crater Lakes National Park Management Statement 2013 has been extended in 2024 in line with the Queensland *Nature Conservation Act 1992* (s120G). Minor amendments have been made. There has been no change to the statement's original management intent and direction.

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| Park size: | 974ha |
|-------------------------------------|-----------------------------|
| Bioregion: | Wet Tropics |
| QPWS region: | Northern |
| Local government estate/area: | Tablelands Regional Council |
| State electorate: | Dalrymple |

Legislative framework

| ~ | Aboriginal Cultural Heritage Act 2003 | | |
|---|---|--|--|
| ~ | Environment Protection Biodiversity Conservation Act 1999 (Cwlth) | | |
| ~ | Nature Conservation Act 1992 | | |
| ~ | Native Title Act 1993 (Cwlth) | | |
| ~ | Wet Tropics World Heritage Protection and Management Act 1993 | | |

Plans and agreements

| ~ | Bonn Convention | | | |
|---|---|--|--|--|
| ~ | China—Australia Migratory Bird Agreement | | | |
| ~ | Draft recovery plan for the spotted-tail quoll (northern sub-species) Dasyurus maculatus gracilis | | | |
| ~ | Japan—Australia Migratory Bird Agreement | | | |
| ~ | National recovery plan for the spectacled flying fox Pteropus conspicillatus | | | |
| • | National recovery plan for cave-dwelling bats, Rhinolophus philippinensis, Hipposideros semoni and Taphozous troughtoni 2001–2005 | | | |
| • | Recovery plan for the stream-dwelling rainforest frogs of the Wet Tropics biogeography region of north-east Queensland 2000–2004 | | | |
| • | Recovery plan for the southern cassowary Casuarius casuarius johnsonii | | | |
| ~ | Republic of Korea—Australia Migratory Bird Agreement | | | |
| ~ | Wet Tropics of Queensland World Heritage Area Regional Agreement 2005 | | | |

Thematic strategies

| ~ | Level 2 Fire Strategy |
|---|-----------------------|
| ~ | Level 2 Pest Strategy |

Vision

Crater Lakes National Park continues to protect the unique scenic qualities of the lakes and surrounding rainforest, and the many species of conservation significance that occur there. Crater Lakes National Park continues to be a premier site for tourism, recreation, education and research. It showcases outstanding natural values.

Easy vehicular access is provided for park users.

Conservation purpose

Crater Lakes National Park was formed by the amalgamation of Lake Eacham National Park and Lake Barrine National Park in 1994. These two national parks were originally gazetted in 1934, and were subsequently included in the Wet Tropics World Heritage Area in 1988.

Crater Lakes National Park conserves two maars—or crater lakes—surrounded by rainforest (Lake Eacham and Lake Barrine). These maars are a focus for recreational activities on the tablelands.

Protecting and presenting the area's values

Landscape

Situated on the divide between the Mulgrave and Barron catchments, the park is comprised of two separate sections—Lake Barrine and Lake Eacham. Both sections protect volcanic crater lakes—or maars—surrounded by rainforest.

Surrounding land uses include agriculture, rural residential development and roads.

Regional ecosystems

Four regional ecosystems occur on the park, two of which are endangered and one is of concern (Table 1).

Native plants and animals

Crater Lakes National Park protects plant and animal species of conservation significance listed under the *Nature Conservation Act 1992* and *Environment Protection and Biodiversity Conservation Act 1999* (Table 2). Fourteen bird species recorded on the park are listed under international agreements (Table 3).

Although the park is not well-known as a spotlighting destination, most of the Wet Tropics endemic arboreal mammals haven been recorded on the park. The lakes once protected the Lake Eacham rainbowfish Melanotaenia eachamensis. This species, originally thought to be confined to these two lakes, became locally extinct after the introduction of other fish species (Barlow *et al.* 1987). In more recent years, this fish has been identified in nearby waterbodies, such as Winfield Creek in the park and in a nearby maar—Lake Euramoo.

A Queensland Parks and Wildlife Service (QPWS) work base and nursery is located in the Lake Eacham section of the park. Many seedlings grown in the nursery are used for revegetation works within protected areas in the local area.

Aboriginal culture

Crater Lakes National Park forms part of the traditional country of both the Ngadjon-Jii and Yidinji people. The Yidinji people are particularly associated with the Lake Barrine area. There is limited information available on Aboriginal cultural history of the park. The land, lakes, landscape features and natural resources remain culturally significant to the Ngadjon-Jii and Yidinji people today.

The tableland Yidinji people have lodged a native title claim (QC04/010) that includes the Lake Barrine section of the park.

Shared-history culture

The Lake Eacham area was occupied by the Australian and American military during World War II.

The Lake Barrine Tea House is the site of the original settlement of the Curry family. The Curry family still own and operate the tea house, and present information to visitors about the history of their family at the site.

Lake Eacham was offered as a farming selection, but a local community delegation had the land bought back as a scenic reserve.

Tourism and visitor opportunities

Crater Lakes National Park is an important centre for recreation and tourism, receiving high numbers of local visitors and tourists. Visitor opportunities are similar at both lakes, being predominantly passive, nature-based activities such as sightseeing, nature observation, walking and swimming. Both lakes have good access and constructed recreation areas with visitor facilities.

Lake Eacham tends to be favoured for local recreational use, particularly swimming. The recreation area is able to accommodate large numbers of visitors, but does not receive the coach traffic and commercial enterprises that characterise the Lake Barrine visitor experience.

Education and science

Easy access to relatively undisturbed rainforest has led to lakes Eacham and Barrine being used as research sites for the study of wet tropical rainforest ecology, as well as geomorphologic studies of the crater lakes. The isolation of the forest remnants offers opportunities for study of the ecology of species in isolated patches. An arboretum dedicated to the plant family Lauraceae has been established near the Lake Eacham nursery.

Partnerships

QPWS is legislatively responsible for the day-to-day management of the national park and Wet Tropics Management Authority regulates activity in the Wet Tropics World Heritage Area. The goal of both agencies is to present the area's significance while protecting its natural and cultural values.

While not the subject of a formal agreement, QPWS works closely with the Curry and Bayne families (owners of the Lake Barrine Tea House) to address local visitor information, access and pest management. An agreement exists for the shared use of the waste water treatment facility at Lake Barrine.

Other key issues and responses

Pest management

Pest plants

Coffee Coffea arabica occurs in the southeast corner of the Lake Barrine section. Currently, control activities are aimed at removal of mature plants. Once all fruiting plants are located and removed, ongoing control of seedling recruits will be necessary. Reinfestation may ultimately result if birds disperse propagales from surrounding land.

Salvinia Salvinia molesta is an invasive aquatic plant that occurs in Lake Eacham. The severity and extent of the infestation fluctuates seasonally, and has been significantly reduced since the introduction of salvinia weevil *Cyrtobagous salviniae* in 2009. A salvinia weevil breeding facility at the Lake Eacham nursery supplies weevils for biocontrol to landholders, local government and other land managers in the region.

Madeira vine Anredera cordifolia occurs as a small, discreet infestation. Initial control activities have occurred.

Pokeweed Rivina humilis occurs in the park, primarily along the edge of the walking track.

Pest animals

The exotic fish tilipa *Tilapia mariae* occurs in Lake Barrine. Control methods include electrofishing and manual removal by spearfishing during the nesting season.

Impacts from feral pigs Sus scrofa and dogs Canis familiaris are poorly documented and largely anecdotal.

Fire management

The area is managed within the Crater Lakes Aggregation Level 2 Fire Management Strategy.

References

Barlow, C.G., Hogan, A.E., and Rodgers, L.J. 1987 Implication of Translocated Fishes in the Apparent Extinction of the Lake Eacham Rainbow Fish, *Melanotaenia eachamensis*, *Australian Journal of Marine and Freshwater Research* **38**, 897–202.

Management directions

| Desired outcomes | Actions and guidelines |
|--|--|
| Landscape Management of terrestrial habitats to prevent or minimise disturbance and degradation, and rehabilitate degraded areas. | Maintenance of walking trail networks, car parks, and other infrastructure |
| Management issues Management of the lakes to minimise factors which adversely affect or threaten water quality. | Water quality monitoring program to be established. Negotiate with Department of Transport and Main Roads to redirect run-off from Gillies Highway out of the lake catchment. |
| Pest management Eradication or suppression of pest plant species. | Implement integrated control measures to eradicate or limit the spread and further invasion of park habitats by pest plants and animals. |

Tables – Conservation values management

Table 1: Endangered and of concern regional ecosystems

| Regional ecosystem number | Description | Biodiversity status |
|---------------------------------|---|---------------------|
| 7.8.2a | Complex mesophyll vine forest on uplands of the very wet and wet cloudy rainfall zones. | Of concern |
| 7.3.33 | Lakes within volcanic craters, including open water, and narrow shoreline sedge fringes. | Endangered |
| 7.8.13 | Simple notophyll vine forest of <i>Blepharocarya involucrigera</i> of high rainfall cloudy uplands on basalt. | 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 |
|---|--------------------------|---|---|-------------------------|
| Plants | | | | |
| Arenga australasica | arenga palm | Vulnerable | Vulnerable | Low |
| Agathis microstachya | bull kauri | Near threatened | - | Endangered |
| Lemmaphyllum accedens | - | Presumed extinct | Extinct | - |
| Hodgkinsonia frutescens | - | Least concern | Vulnerable | Low |
| Marsdenia straminea | - | Vulnerable | - | Medium |
| Schizomeria whitei | white birch | Near threatened | - | Low |
| Peripentadenia mearsii | buff quandong | Near threatened | - | Low |
| Argyrodendron sp. (Boonjie B.P.Hyland RFK2139) | - | Near threatened | - | Low |
| Haplostichanthus submontanus subsp. sessiliflorus | - | Near threatened - | | Low |
| Pandanus gemmifer | - | Near threatened | - | Low |
| Animals | | • | | |
| Melanotaenia eachamensis | Lake Eacham rainbowfish | Least concern | Endangered | Low |
| Litoria nannotis | waterfall frog | Endangered | Endangered | Low |
| Litoria nyakalensis | mountain mistfrog | Endangered | Critically endangered | Low |
| Litoria rheocola | common mistfrog | Endangered | Endangered | Low |
| Litoria serrata | tapping green eyed frog | Near threatened | | Low |
| Casuarius casuarius johnsonii | southern cassowary | Endangered | Endangered | Critical |
| Cyclopsitta diophthalma macleayana | Macleay's fig-parrot | Vulnerable | - | Low |
| Accipiter novaehollandiae | grey goshawk | Near threatened | - | Low |
| Nettapus coromandelianus | cotton pygmy-goose | Near threatened | - | Low |
| Aerodramus terraereginae | Australian swiftlet | Near threatened | - | Low |
| Ceoranoscincus frontalis | - | Near threatened | - | Low |
| Eulamprus tigrinus | - | Near threatened | - | Low |
| Dendrolagus lumholtzi | Lumholtz's tree kangaroo | Near threatened | - | Low |
| Hemibelideus lemuroids | lemuroid ringtail possum | Near threatened | - | Low |

| Pseudochirops archeri | green ringtail possum | Near threatened | - | Low |
|---------------------------------|-------------------------------|-----------------|------------|----------|
| Pseudochirulus herbertensis | Herbert River ringtail possum | Near threatened | - | Low |
| Antechinus godmani | Atherton antechinus | Near threatened | | Low |
| Dasyurus maculatus gracilis | spotted-tailed quoll | Endangered | Endangered | Critical |
| Rhinolophus philippinensis | large-eared horseshoe bat | Endangered | Endangered | High |
| Murina florium | tube-nosed insectivorous bat | Vulnerable | - | High |
| Hipposideros diadema reginae | diadem leaf-nosed bat | Near threatened | - | Low |
| Kerivoula papuensis | golden-tipped bat | Near threatened | - | Medium |
| Pteropus conspicullatus | spectacled flying-fox | Least concern | Vulnerable | High |

Table 3: Species listed in international agreements

| Scientific name | Common name | CMS | JAMBA | CAMBA | ROKAMBA |
|---------------------------|---------------------------|----------|-------|-------|----------|
| Haliaeetus leucogaster | white-bellied sea-eagle | - | - | - | ✓ |
| Acrocephalus australis | Australian reed-warbler | ✓ | - | - | - |
| Hirundapus caudacutus | white-throated needletail | - | ✓ | ✓ | ✓ |
| Ardea ibis | cattle egret | - | - | - | ✓ |
| Ardea modesta | eastern great egret | - | ✓ | - | ✓ |
| Coracina tenuirostris | cicadabird | - | ✓ | - | - |
| Hydroprogne caspia | Caspian tern | - | ✓ | - | ✓ |
| Sterna dougallii | roseate tern | - | ✓ | - | ✓ |
| Merops ornatus | rainbow bee-eater | - | ✓ | - | - |
| Monarcha frater | black-winged monarch | ✓ | - | - | - |
| Monarcha melanopsis | black-faced monarch | ✓ | - | - | - |
| Symposiarchus trivirgatus | spectacled monarch | ✓ | - | - | - |
| Rhipidura rufifrons | rufous fantail | ✓ | - | - | - |
| Gallinago hardwickii | Latham's snipe | ✓ | ✓ | ✓ | ✓ |

BONN (CMS) - Bonn Convention

CAMBA - China-Australia Migratory Bird Agreement

JAMBA – Japan–Australia Migratory Bird Agreement

ROKAMBA – Republic of Korea–Australia Migratory Bird Agreement