

Black Mountain - Kalkajaka

Location

Black Mountain is on Cape York Peninsula, 25 km south-west of Cooktown.

Park features

Black Mountain National Park contains an imposing mountain range of black granite boulders. These formidable boulders, some the size of houses, stack precariously on one another—appearing to defy both gravity and logic.

The wet tropics and drier savanna/woodland regions meet in this park, making it a refuge for wildlife. The extraordinary combination of flora and geomorphology provides a habitat for an unusual range of wildlife, including species that are endemic (entirely confined) to this boulder-jumbled mountain.

Known as Kalkajaka (meaning 'place of spear'), Black Mountain is an important meeting place for the Eastern Kuku Yalanji Aboriginal people and is the source of many Dreaming stories. The mountain is also a feature of local non-Aboriginal folklore.

Natural environment

Geology and landform

Black Mountain's structure resulted from slow geological processes. Around 260 million years ago, a mass of molten rock (magma) slowly solidified deep below the earth's surface, forming a body of hard granite rock. As softer land surfaces above eroded away, the sparsely fractured top of this granite was gradually exposed. Weathering and chemical decomposition removed loose material along weak fractures extending downward through the rock. More resistant rock remained as large rectangular blocks, their corners becoming progressively rounded into boulders. The solid granite core of the mountain now lies beneath the jumbled cover of boulders.

The granite rock is actually a light grey colour and composed of mineral such as feldspar, mica and hornblende. Black Mountain's distinctive dark appearance is due to a film of microscopic blue-green algae growing on the exposed surfaces. Grey patches and boulder fractures indicate ongoing rock disintegration—a process accelerated dramatically when cold rain hits rock, sometimes with explosive results.

A mountain of black boulders

The boulders of Black Mountain are not actually black at all—when freshly cut, the rock is a pinkish-grey granodiorite. The black coating is due to blue-green algae, which covers the surface of the rock.

The rocks were originally intruded below the surface around 260 million years ago. Erosion has exposed the upper section of the granitic mass, then weathering has acted on regular fractures throughout the rock to isolate large rectangular blocks. Further weathering has rounded the edges of these blocks.

The high annual rainfall of this wet tropical climate has helped remove much of the weathering debris between the boulders, leading to the mountain's appearance as a jumbled mass of boulders. This is quite different to landscapes formed on granitic masses in other climates, such as Girraween National Park in cooler and drier southern Queensland.

Animals

Within the 600 ha (6 km²) area of this unusual environment lives three animals that can only be found here at Black Mountain National Park. This makes Black Mountain one of the most restricted habitat ranges of any Australian animal.

The vulnerable Black Mountain skink *Liburnascincus scirtetis* is a small lizard with long legs and a distinctive duckbill-like snout. This slender skink is black in the shade but glistens green in the sunlight. Its long limbs are flecked with yellow, and a golden stripe runs down the length of its back. The skink is often seen basking or hunting over the mountains rocks during the day, except for the hottest hours when it retreats within the boulder jumble.



The Black Mountain skink is endemic to Black Mountain National Park. Photo: NPSR.

The vulnerable Black Mountain boulderfrog *Cophixalus saxatilis* is the largest of Australia's microhylids—a group of frogs normally confined to the leaf litter of tropical rainforests. About the size of a walnut, this large-eyed frog lays its eggs on land rather than in water. An adult tends to the eggs and young, which hatch as fully formed froglets. They have no tadpole stage. The bright yellow female frog and the smaller mottled brown male are more easily heard than seen. Their call is a sharp tapping noise. They have acquired an almost crab-like ability to scuttle on the granite boulders, although they can still disappear in a series of leaps when alarmed. At night these frogs emerge to forage on the boulders of the mountain and in and about the scattered figs and fringing monsoon forest.

The third restricted species is the vulnerable Black Mountain gecko *Nactus galgajuga*. Active only at night, this mottled purplish-brown, large-eyed, extremely agile gecko is very elusive. The species name, galgajuga, is a form of the Aboriginal name for the mountain, Kalkajaka.

Several other species of rock-dwelling lizards occur on the mountain, of which the ring-tailed gecko *Cyrtodactylus lousiadensis* is probably the most spectacular. Heavily banded with light and dark stripes, this species occurs at only a few other localities.

Snakes are fairly common around and on the boulders and rocks. Giant amethystine pythons *Morelia kinghorni*, [carpet pythons *Morelia spilota*](http://www.ehp.qld.gov.au/wildlife/animals-az/carpet_python.html) (http://www.ehp.qld.gov.au/wildlife/animals-az/carpet_python.html), spotted pythons *Antaresia maculosa*, northern death adders *Acanthophis praelongus* and [brown tree snake *Boiga irregularis*](http://www.ehp.qld.gov.au/wildlife/animals-az/brown_tree_snake.html) (http://www.ehp.qld.gov.au/wildlife/animals-az/brown_tree_snake.html) are all found here.

The blend of rainforest and open forest in the park supports rich birdlife. Overhead, look for black kites *Milvus migrans* flying leisurely with slow wing-beats and glides. Above the boulders look for near threatened (rare) Australian swiftlets *Aerodramus terraereginae*. When in dark caves and crevices these birds use echo-location, emitting sharp clicks and using the echo that bounces back to navigate. In flight they utter shrill cheeping and squealing notes. Australian swiftlets are endemic to Queensland.

Black Mountain is rich with mammal fauna. Mammals that inhabit this mountain include several species of native rodents, marsupial carnivores such as the endangered [northern quoll *Dasyurus hallucatus*](http://www.ehp.qld.gov.au/wildlife/threatened-species/endangered/queenslands_quolls.html) (http://www.ehp.qld.gov.au/wildlife/threatened-species/endangered/queenslands_quolls.html), Godman's rock-wallabies *Petrogale godmani* and numerous bats. At least three species of [flying-fox](#) (

<http://www.ehp.qld.gov.au/wildlife/livingwith/flyingfoxes/index.html>), the Queensland tube-nosed bat *Nyctimene robinsoni*, the eastern blossom bat *Syconycteris australis* and the northern blossom bat *Macroglossus minimus*, all of which feed on fruits and nectar from the fringing monsoon forest, are common here. In addition, insect-eating bats, which roost in the extensive cave-like formations, include species of horseshoe bats, sheath-tailed bats, bent-wing bats, little north-eastern freetail bats *Mormopterus loriae ridei*, large-footed myotis bats *Myotis macropus*, and minute Finlayson's cave bats *Vespadelus finlaysoni*. Australia's only truly carnivorous bat, the ghost bat *Macroderma gigas* is also a resident of the mountain area. This bat is the largest of the microbat species in Australia and is also considered vulnerable over most of its range. It is in reasonable numbers in the Black Mountain area because of the abundance of prey such as small insectivorous bats, lizards and frogs.

There have been numerous reported sightings of the 'Queensland Tiger', allegedly a resident in the mountain. This animal has been attributed to the death and mauling of cattle in the Cooktown area. Interestingly, the tiger is described as a large striped cat closely resembling the marsupial lion *Thylacoleo carnifex*, which inhabited Queensland until 20,000 years ago when it is believed to have become extinct.

Plants

The apparently barren landscape supports a surprisingly large range of animals and plants, which are specially adapted to this unusual environment.

The green patches on the otherwise bare mountainsides are large fig trees. Seedlings, able to establish themselves in rock crevices, extend long roots to draw water and dissolved nutrients from deep within the mountain.

Around the base of the mountain are a number of plants normally found in rainforest. Self-mulching ferns, umbrella trees and stinging trees have adapted to these very different conditions.

Monsoon forest, technically known as semi-deciduous mesophyll vine forest, grows around the edges of the rock masses. This vegetation is a haven for animals that venture from or to the rocky shelter of the mountain.

World heritage listing

Black Mountain National Park is within the [Wet Tropics World Heritage Area](http://www.npsr.qld.gov.au/world-heritage-areas/wet-tropics/index.html) <http://www.npsr.qld.gov.au/world-heritage-areas/wet-tropics/index.html>. Proclaimed in 1988, the WTWHA extends for about 450 km between Cooktown and Townsville. Consisting of nearly 900,000 ha, vegetation includes tropical rainforest, open eucalypt forest, wetlands and mangrove forests. The WTWHA meets all four natural criteria for World Heritage listing. These criteria recognise the area's exceptional natural beauty and the importance of its biological diversity and evolutionary history, including habitats for numerous threatened species. The WTWHA also has cultural significance for Aboriginal people who have traditional links with the area and its surrounds.

Culture and history

Aboriginal culture and history

Black Mountain is a significant place for the Eastern Kuku Yalanji Aboriginal people of the area, who hold it in great respect. It is a focus of several Dreaming stories, and continues to be important to this day. The Aboriginal people are now actively involved in the management of significant places like Kalkajaka (their name for the mountain).

There are many sites of cultural significance on the mountain. These include Kambi, a large rock with a cave where flying-foxes are found; Julbanu, a big grey kangaroo-shaped rock looking toward Cooktown; and Birmba, a stone facing toward Helenvale where sulphur-crested cockatoos are seen. There are places that are taboo at the foot of the mountain range.

Non-Aboriginal culture and history

When European colonists arrived late last century, they added to the many Aboriginal legends of the area with a few of their own. Stories abound of people, horses and whole mobs of cattle disappearing into the labyrinth of rocks, never to be seen again. Beneath the outer boulders lies a maze of passages

and chambers—enticing to explorers of unusual places, or those wishing to hide away from pursuers. In the ink dark interior, sheer drops, pockets of bad air or unexpected encounters with snakes or bats could easily cause panic and injury to intruders entering that eerie underworld.

Adding to the mystery of the mountain, pilots report aircraft turbulence and magnetic effects over Black Mountain (thermal currents), and people have reported loud bangs (cracking boulders) and mournful cries (wind and water).

[Natural environment](http://www.nprsr.qld.gov.au/parks/black-mountain/culture.html#natural_environment) (http://www.nprsr.qld.gov.au/parks/black-mountain/culture.html#natural_environment)

[Culture and history](http://www.nprsr.qld.gov.au/parks/black-mountain/culture.html#culture_and_history) (http://www.nprsr.qld.gov.au/parks/black-mountain/culture.html#culture_and_history)