

Spectacular Mutawintji National Park is an oasis of gorges and rock pools, dominated by the rugged Byngnano Range. Important to Aboriginal people for thousands of years, the area preserves numerous art and cultural sites. Its intricate landscape provides a haven to diverse plants and animals. It also has a rich geological story in its ancient rocks.

Walking into Homestead Gorge. Credit: John Spencer, Department of Planning, Industry and Environment.



## Geological overview

The rocks of Mutawintji National Park tell a story that stretches back 650 million years to the late Proterozoic Eon. At that time, the region was covered by sea and lay at the eastern edge of the supercontinent Gondwana, near a boundary between Earth’s tectonic plates. Over many millions of years, the plates moved and pushed against each other creating mighty tectonic upheavals. These forces formed a chain of volcanoes in the Cambrian Period (around 500 million years ago [Ma]), and later caused 3 episodes of mountain building, separated by long quiet periods of erosion and intermittent deposition, from the Silurian to Carboniferous periods.

On this geotrail you’ll explore rocks formed during the Early to Middle Devonian Period (from 419 to 400 Ma), when a vast braided river system extended across the area after a mountain-building event. Sediment eroded off the mountains was deposited by these rivers as a thick layer of pebbly quartz sand and gravel. Over time, the sediments were deeply buried and compacted into rock, then tilted, uplifted and eroded, and they now form the ridges and gorges. Rising sea levels (around 146 to 66 Ma) led to an inland sea forming to the north and west of the area. Since then, a drop in sea level and resulting substantial weathering have resulted in the landscape we see today.



## Welcome!

The word ‘Mutawintji’ comes from Wiimpatja Parku, the main Aboriginal language used in the region today. It means ‘place of green grass and waterholes’. Aboriginal people have lived and gathered in the area for thousands of years and it is one of their most significant sacred places in far western NSW. Aboriginal people from the Lake Eyre Basin, western Queensland, the Flinders Ranges and western NSW came together here for ceremonial business, trade and celebrations. Mutawintji was the first national park in NSW to be handed back to Aboriginal owners.

We acknowledge the Aboriginal Owners of the Mutawintji Lands being the Wanuwakul, Malyanuppa, Bungaguli, Wilyakali and Barkandji people and pay respect to Elders past, present and emerging.

### Aboriginal heritage

Mutawintji National Park protects a ceremonial centre for Aboriginal people from a wide region and contains important features such as creation places, rock engravings, stencils, paintings and evidence of past occupation.

### Getting to Mutawintji

Several sealed and unsealed roads provide access to Mutawintji National Park, which lies 130 km northeast of Broken Hill. You can get there from Broken Hill via the Silver City Highway and Mutawintji Road. From White Cliffs take Opal Miners Way, Whipstick Road and Mutawintji Road, or from the Barrier Highway follow Waterbag Road.

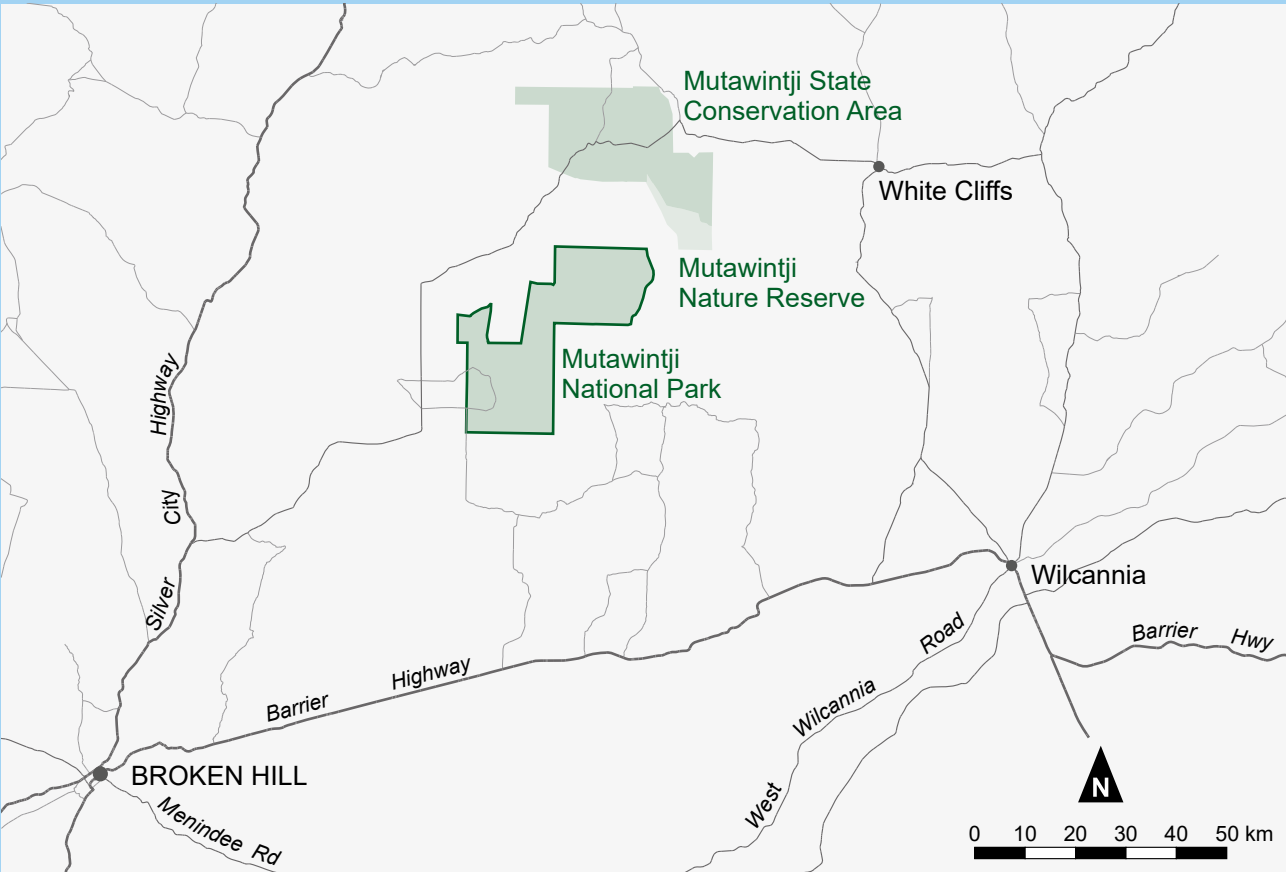
Roads are suitable for 2WD vehicles and caravans in dry conditions. After rain many of the unsealed roads become dangerous and are closed. Check with local councils or visitor information centres for road conditions.

### Mutawintji park facilities

The visitor centre is on the left as you enter the national park and is always open. Mobile phone reception and a Telstra pay phone is also available at the centre. The visitor centre and Homestead Creek camping area have picnic tables, shelters, BBQ and toilet facilities, with showers at the camping ground. You must bring your own firewood if you use the wood BBQs in the camping area. Fees apply for camping.

### Safety and access

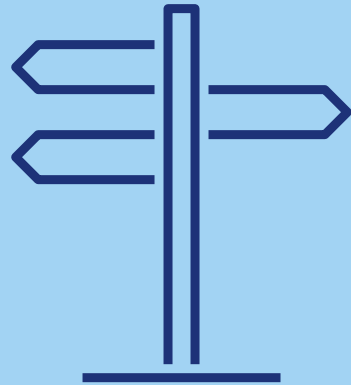
A general rule for visitors to Mutawintji is to always wear a hat and sunscreen, suitable bushwalking footwear and take plenty of water. In hotter months, careful safety precautions to manage heat exhaustion hazards in outback conditions are essential. Mobile phone network coverage is generally limited to the area of the visitor centre only. It is always recommended to stay on defined walking paths and trails. Many driving routes in the park are on gravel or dirt roads and have creek crossings which can be difficult to cross in vehicles with low ground clearance. 4WD vehicles are recommended. Check the NSW National Parks and Wildlife Service (NPWS) advice on road and weather conditions when planning your visit to Mutawintji.



18  
stops

4  
tours

23  
km



Emus at the entry to Mutawintji.

View eastwards down Mutawintji Gorge.

The geotrail walks are graded from 1 (wheelchair accessible) to 5 (very experienced bushwalker). Refer to the NPWS website for more information.



Cover photo: Aboriginal art, Mutawintji National Park. Credit: Destination NSW.

## Timescale of major events in the region

	Period	Event
0	Quaternary	Megafauna widespread
3	Neogene	Oldest human-like ancestors (hominids)
23	Palaeogene	
66	Cretaceous	
145	Jurassic	Sea levels rise in Mutawintji due to the break up of Gondwana
201	Triassic	First mammals
252	Permian	
299	Carboniferous	Last major mountain-building event in the Mutawintji region commenced (the Kanimblan Orogeny)
359	Devonian	
419	Silurian	
444	Ordovician	First land plants
485	Cambrian	Quartz-rich rocks (the Mutawintji Group) are deposited
541	Proterozoic	Mount Wright Volcanic Arc formed
		Kara Formation, oldest rocks of Mutawintji National Park, is deposited
2500		

Note: All ages are approximate. Not to scale.

## Credits

This project is a collaboration between the Geological Survey of New South Wales, the Mutawintji Board of Management, NSW National Parks and Wildlife Service (NPWS) and local Aboriginal traditional owners.

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## Learn more



**NSW GeoTours**

Download our free app! Explore the geotrail at your own pace, with a tour guide at your fingertips.



 Caution! Wildlife, weather and unstable ground can pose risks.  
Be sure to carry plenty of water.

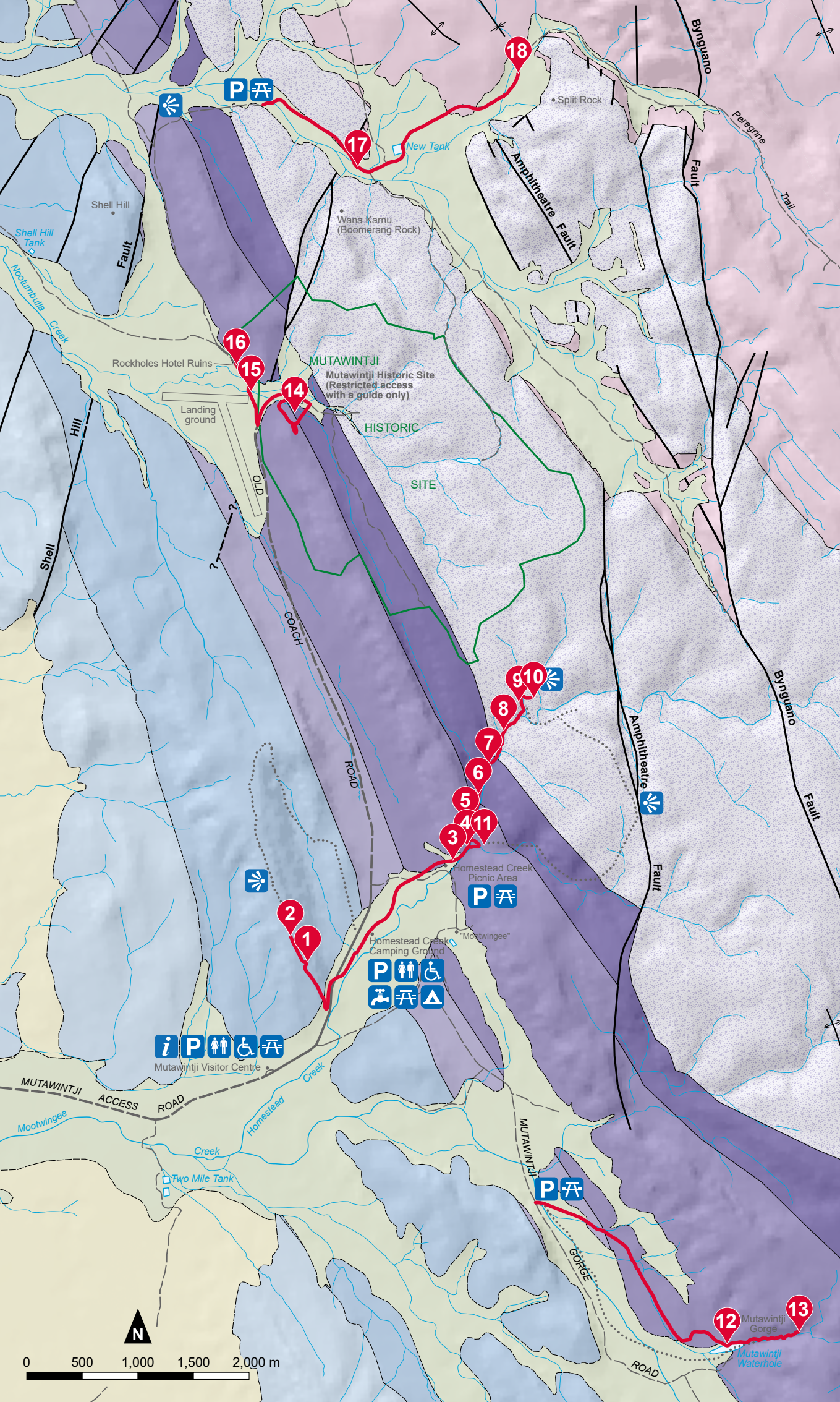


## Mutawintji National Park Geotrail



[resources.nsw.gov.au](https://resources.nsw.gov.au)





1

Geotrail stop

Geotrail

Sealed road

Unsealed road

NPWS service track

Walking track

Mutawintji Historic Site

i

Visitor information

P

Car park

Toilets

Wheelchair accessible

Water

Lookout

Picnic area

Campsite

Quaternary

Alluvium

Woorinen Formation (Fm)

Aeolian

Devonian

Ravendale Fm

Bengoro Ridge Fm

Shell Hill Fm

Devonian

Old Coach Road Fm

Homestead Gorge Fm

New Tank Fm

Ordovician

Mutawintji Group

# Stops 1–11

## Western Ridge & Homestead Creek

📍 11 📏 9.5 km ⌚ 4–5 h 🧑‍🦿 Grade 5

The rocky western ridge section provides good views of the park and flat plains to the west and is worth doing at sunset. Walking along Homestead Creek, follow the rocky Homestead Gorge, see ancient Aboriginal rock art and rock carvings and walk over Wana Karnu Group Devonian sedimentary rocks. This section ends with the steep Rockholes Loop track which takes you up and across massive sandstone and conglomerate rocky landforms, culminating in spectacular views. Cross-bedding structures in the sedimentary rocks are a prominent feature of the walk.

Rockholes Lookout near Stop 10.

Cross-bedding structures in the sand and pebbles indicate the differing water flow directions preserved in the rocks.

# Stops 12–13

## Mutawintji Gorge

📍 2 📏 6 km ⌚ 2.5–3.5 h 🧑‍🦿 Grade 5

Walk across rangeland country to one of the park's most scenic gorges, an oasis of Aboriginal significance where you'll see spectacular modern and ancient water features along Old Mutawintji Creek. At the head of the gorge there is a large rockpool, which is one of the few reliable sources of water in the area. As a result, there is a wealth of animal and plant life in the gorge area. At the end of the gorge walk clambering over large rocks is required.

Hand stencils in a rock shelter at the Mutawintji Historic Site.

Waterhole near the entrance of Mutawintji Gorge.

Mutawintji locals.

# Stops 14–16

## Mutawintji Historic Site

📍 3 📏 3 km ⌚ 3–3.5 h 🧑‍🦿 Grade 3

This section of the geotrail includes the Mutawintji Historic Site (Stop 14) and 2 stops along the Old Coach Road, ending at the historic ruins of the old Rockholes Hotel. The Mutawintji Historic Site is a very special ceremonial place where initiation, rain-making and other ceremonies have been held. Some of these events have attracted over 1,000 Aboriginal people from around the region. Aboriginal people continue to gather at the site for cultural events and meetings. The site includes superb Aboriginal artwork.

**The Mutawintji Historic Site can only be accessed with an authorised guide as part of a pre-booked 2 hour tour. Visit the NPWS Mutawintji webpage for tour bookings.**

These 400-million-year-old animal tracks are preserved in the sandstone at the Mutawintji Heritage Site.

Ruins of the Rockholes Hotel.

# Stops 17–18

## Split Rock

📍 2 📏 6 km ⌚ 3 h 🧑‍🦿 Grade 2

This scenic walk leads to massive sedimentary rocks that have been moved and shaped by Earth's forces hundreds of millions of years ago. As you walk along the track you will pass Boomerang Rock which is formed from tilted Devonian sandstone of the New Tank Formation. In the rocky hills to the west of Split Rock, the rocks change from Devonian to older Cambrian or Ordovician age. These older rocks contain fossils that indicate they originate from the edge of a shallow sea.

As well as being a special place for Aboriginal women, the rocky hills near Split Rock were also once a bushranger's hideout. The Aboriginal Owners of Mutawintji advise that only women can be within 100 m of Split Rock.

Boomerang Rock.

Split Rock.

## Glossary

**Aeolian** deposits transported and laid down by the wind.

**Alluvium** deposits transported and laid down by running water in a stream or river.

**Braided river** one that divides into or follows an interlacing network of branching and reuniting shallow channels.

**Conglomerate** a sedimentary rock composed of rounded to sub-angular granules, pebbles, cobbles and boulders in a fine-grained matrix.

**Cross-bedding** inclined bedding (or layers) in sedimentary rocks that has been deposited by water or air currents at an angle to the main bedding plane (e.g. on the front of a sandbar sloping downstream).

**Deposition** a landform resulting from weathered or eroded material coming to rest or being deposited.

**Erosion** the physical process by which rocks, soil or dissolved material are moved by agents such as water, ice, gravity or wind.

**Gondwana** a supercontinent that existed approximately 550 to 180 million years ago in southern hemisphere, made up of Australia, India, Antarctica, Africa and South America.

**Quartz** a common, resistant mineral composed of crystalline silica that is typically pale grey, white or translucent.

**Tectonic** the forces within Earth that cause movements of the crust such as earthquakes, folds and faults.

**Sandstone** a sedimentary rock made up of sand-size grains of mineral, rock or organic material.

**Sedimentary rock** a rock formed at or near Earth's surface by the accumulation of sediments or pieces of once-living organisms. Common examples include mudstone, sandstone, conglomerate, limestone and shale.

**Weathering** the decomposition of rocks, soil or minerals through physical, chemical or biological processes.

## Further information

For a more detailed look at the rocks of Mutawintji, grab a **Geology of Mutawintji National Park 1:80 000 map**.

Hardcopy (\$11): [shop.regional.nsw.gov.au/products/9265](https://shop.regional.nsw.gov.au/products/9265)

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