rocky slopes. Some rocks clearly show the bedding layers (picked out by dark minerals) and some have pebble-sized pock marks where balls of clay, have been weathered away.

**1.9** Stands of Drooping Sheoaks such as those near here are more or less even-sized, suggesting that they all grew together following a fire. Sheoaks are fire sensitive and frequent fires do not allow them to grow into large trees.

# **1.0 Checkpoint 4**—spur track to Mt Brown summit.

Follow distance markers up to the summit; it is 2 km return to this spot. Between here and the summit there are rough outcrops of quartzite, with plenty of Mt Lofty Grass-trees and more Long-leaved Box.

## **0.0** Checkpoint 5—the summit (970 m).

On the summit of Mount Brown there are solar-powered radio installations. The trigonometrical station (trig point) was built during the early surveys.

A lookout has been established over the trig point to honour naturalist Robert Brown, who, with a party of others from Matthew Flinders' *Investigator*, climbed Mount Brown on 10 March 1802. This is a significant heritage site for South Australia and information panels on the platform give the history of the site and surrounding country. The Long-leaved Box trees have been cut from time to time for survey purposes and fences.

The view includes (all bearings are magnetic):

Wilpena Pound	27°	115 km
Horseshoe Range (Moockra Tower)	65°	39 km
Mt Remarkable	149°	36 km
Point Bonython (hydrocarbon storage)	196°	58 km
Whyalla	210°	71 km
Devils Peak (below horizon) and the	344°	10 km
Dutchmans Stern Range beyond		22 km

Return to Checkpoint 4; you can either return to Olive Grove the way you came (5 km) or continue around the circuit (8 km).

#### **8.0 Checkpoint 4**—returning via eastern ridge.

**8.0 to 7.8** The route traces east round the foot of Mount Brown; shrubs and Grass-trees under the Grey Box are replaced by Porcupine Grass.

An open saddle is at the head of the tributary to Waukarie Creek that we entered at Checkpoint 2 and is on the same faultline. The wind, past fire regimes and grazing have probably ensured that this area remains free of shrubs and trees. The walk continues across a slope of Porcupine Grass.

**5.4** Note the fine views south across the Willochra Plain to Wilmington and Mt Remarkable.

#### **5.2** Checkpoint 6—ridge junction.

There are more broad views east across the Willochra Plain; look out for ridge-soaring Wedgetailed Eagles; *proceed north down the ridge following the yellow markers*.

**5.0** The shrubby understorey on this slope of Grey Box woodland includes Grass-trees and a different curry bush (Sticky Curry Bush). Lower slopes have open grassy areas without Grass-trees but include more Fragrant Saltbush.

On your way down, look for the views progressively – Mt Brown (south-west), Moockra tower (east), Richman Valley (north), Port Augusta (west), Devils Peak and The Dutchman's Stern Range (north-west).

Richman Valley was part of the pastoral lease of John Richman in 1851. His head station was at Itali Itali on the Wilmington-Quorn road. He drove his sheep to Port Augusta through the ranges to Richman Valley, Waukarie Creek and Pichi Richi.

**0.6** Grassland of Porcupine Grass and Thorn Wattle, then woodland with Narrow-leaved Hopbush.

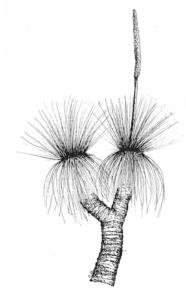
**0.0 Trailhead 1**—near Waukarie Fall.

### Flinders Ranges Walks

- have been established in protected areas to provide visitors with experiences of the Ranges
- trail maintenance and interpretive leaflets at the trailheads are provided by the voluntary Walking Trails Support Group
- support in kind and donations are welcome
- enquiries and comments via the website <u>www.walkingtrailssupportgroup.org.au</u>
- donations via BSB 065132: Account 10111714
- more downloadable information on geology, plants, animals and culture is available on the website and in Explore the Flinders Ranges a definitive guidebook by the Royal Geographical Society of South Australia, AND from
- Flinders Ranges Walks App on Google Play Store.

# Flinders Ranges Walks

# Mount Brown



Mt Lofty Grass Tree (Xanthorrhoea quadrangulata)

The wooded slopes of Mt Brown provide plenty of interest, from distant landscapes to closer views of plants, birds and other animals. For geologists the footslopes to the west are of particular interest, as the rock in Waukarie Creek (west of the walk route) contains evidence of a kilometre-deep canyon formed some 600 million years ago. The canyon cuts down into the coarse, heavy-mineral layered sandstones of the ABC Range Quartzite. Whitish sediments of the Wonoka Formation (silt, limestone, shale) fill the canyon and extend beyond it to comprise the slopes crossed by the walk. Similar canyons occur elsewhere in the Flinders Ranges.

The rather bare shale and limestone slopes of the Wonoka Formation are quickly crossed before entering the Grey Box eucalypt woodland on the quartzite for a gradual climb to the summit—a notable spot in South Australia's history.

Here, there is a commemorative lookout for Robert Brown, naturalist on Matthew Flinders' voyage of exploration in Investigator. The walk returns to Olive Grove down a similar ridge to the east. **Distance and time:** There are two walks (no steep sections) to choose from:

5.8 km one way to the summit; allow 3 hours (6 hours return)

15 km circuit walk including the spur track to Mt Brown summit; allow 7.5 hours. The notes describe the anti-clockwise circuit.

**Altitude range:** 410 m (Trailhead) to 970 m (summit).

Access: From Quorn; at the Quorn Mill go south following the signs to Richman Valley and Waukarie Fall; drive to the southern end of the Richman Valley road, a total distance of about 14 km. The walk starts at Olive Grove Trailhead. Track: Gentle grade, some rocky, but not steep sections

#### For your safety

- This is a walk in a natural area; beware of inherent hazards
- Advise a reliable person of where you are going and when you expect to return
- Wear strong comfortable boots and take adequate food and clothing
- Take at least 2 litres of water per person, more if it is hot
- Protect yourself from the sun and carry a First Aid Kit

Seasons come and go, and plants and animals mentioned in the notes may not always be there.

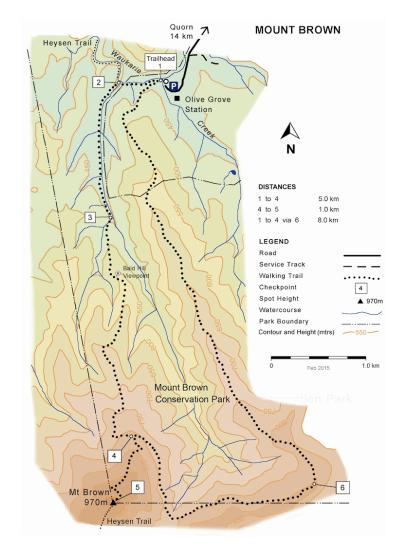


Notes read for an anti-clockwise circuit starting at Checkpoint 1 with marked distances every 200 m decreasing as you proceed.

Walk 100 m down the track from the car park to **Trailhead 1** near Waukarie Fall.

#### **6.0 Olive Grove Trailhead 1**—near Waukarie Fall.

There is often water in Waukarie Creek; an old tank and mill indicate the approximate site of a spring. Big River Red Gums, sedges and Cumbungi take advantage of the creek bed. Along the banks of the creek is woodland typical of quartzite hills—Northern Cypress-pine trees, Grey Box, Drooping Sheoaks, with shrubs of Christmas



Bush, Narrow-leaved Hopbush and Sennas. Despite a history of sheep grazing, native Kangaroo Grass still occurs on these slopes.

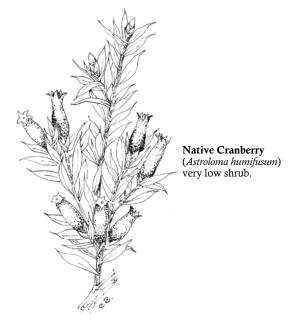
- **5.6** Checkpoint 2—tributary creek enters Waukarie Creek from the south (left). Heysen Trail (red markers) joins here for Woolshed Flat. *Turn left and walk up the tributary*. It is located on a fault which the creek follows up to a point east of Mt Brown.
- **5.4** Near here a dry timber-lined well has been fenced off. Pale coloured soil indicates that we are now on Wonoka Formation which is derived from carbonate sediments laid down in deep oceans.

- **5.2** Very old tree stumps suggest that this was an old woodcutters track.
- **5.0 to 4.4** The characteristic vegetation of the Wonoka Formation includes the round bushy Wallowa (a wattle), Dryland Tea-tree, mallee and Shrubby Twin-leaf. In the creek and on the quartzite slope opposite are River Red Gums, Curry Bush and Narrow-leaved Hop-bush.
- **4.0 Checkpoint 3**—small gully enters from west.

Follow round the slope of the hill to the west.

- **3.3** Take in the view from Bald Hill.
- **3.2** Grey Box woodland starts where the Wonoka Formation begins to peter out and is replaced by ABC Range Quartzite.

The woodland which clothes the quartzite includes Grey Box, Drooping Sheoak and Christmas Bush. Below the trees are many shrubs and herbs including Thorn Wattle, Guinea Flowers, Narrow-leaved Hopbush, Curry Bush, Porcupine Grass and Native Cranberry.



- **2.4** With increasing altitude Sugar Gums with smooth mottled buff and grey bark appear.
- **2.0** The slopes of Mount Brown consist of boulders or scree. Compression of the original sediments caused the development of hidden fractures (joints) deep within the rock, but as weathering proceeded and these became exposed, blocks separated along the joints resulting in