

## Lava Flows Precinct

### Mount Napier State Park and Byaduk Caves



The Byaduk Caves in Mount Napier State Park are a very extensive and accessible set of lava caves. Being so young (only 8,000 years), they are largely unweathered and still maintain their natural state.

The caves were formed when a spectacular lava fountain several hundred metres high roared up from a lava lake in Mt Napier's crater. The lava rose from a depth of over 30 kilometres and its temperature was about 1200 degrees Celsius. It flowed in four directions, and the westerly flow, down Harman's Valley, extends for approximately 24 kilometres.

The eruption point is part of a well-preserved and diverse Late Pleistocene-Holocene volcanic complex, and the number and variety of vents and craters preserved is greater than any other eruption point of its type.

The individual flows would only have lasted a few weeks, separated by longer periods when little happened, but the lava flow eventually wound its way along an ancient watercourse until it terminated at Tyrendarra, where it joined the Mt Eccles lava flow. The combined length of these lava flows makes it one of the longest in the Southern Hemisphere.

The Caves support a sizeable Bent-winged Bat population, and bats tagged at the Naracoorte (South Australia) and Warrnambool maternity sites have been sighted at Byaduk.

Considerable collections of mammal bones including those of the Thylacine – or Tasmanian Tiger – have been found in the caves, but may have been deposited there by predators.

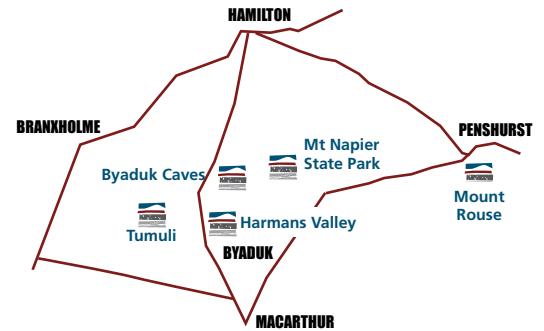
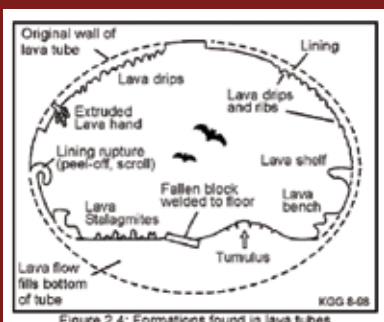
A wealth of native flora including more than 20 species of ferns, along with many species of birds can also be found.

Mt Napier is a composite volcano with two parts – a broad lava shield and a central cone of scoria.

The broad lower slopes of the lava shield form a surface rather like a Viking shield that was built up from lava flows running outward from a molten lake in the central crater. One of these fed the Harman Valley flow.

The steeper central peak of the scoria cone was mainly formed towards the end of the eruption when the lava flows were replaced by more violent explosive activity which threw out a lot of scoria.

Aborigines of the Gurnditjmarra tribe called Mt Napier Taa puuk or Tapoc. Major Thomas Mitchell first climbed Mt Napier on August 28, 1836, during his exploration of "Australia Felix".



### How to get there?

Access to Mount Napier State Park is from the Hamilton to Port Fairy Road. Turn into Murroa Lane to Coles Track, and then turn left into Menzel's Pit Road to reach the start of the summit walk.

### Things to do:

- The Byaduk Caves are situated in the Harman's Valley lava flow. They are accessed through collapsed roof sections and display many well-preserved features left by the retreating and cooling lava. The largest tunnels are up to 18 metres wide, 10 metres high, and extend to depths of 20 metres below the surface.
- The Byaduk Caves provide many opportunities for nature study and walking, and a well signposted loop begins at the end of the gravel road.
- Lava tubes, sinkholes and unique flora and fauna can be observed from the many viewing points situated on the cave edges of Harman's Caves 1 and 2 and Bridge cave. (The walking track starts and ends at the car park.)

The diagram (left) shows some of the features found in lava caves.

#### • Harman's Number 1 Cave

This cave is a simple lava tube, almost straight in plan and with a flat lava floor and circular arched roof. Caving involves scrambling over a number of large roof blocks. In places the original lava floor and benches are visible. The main features are the ferns and mosses at the entrance and the large circular chamber at the far end with a complete domed lava floor.

#### • Harman's Number 2 Cave

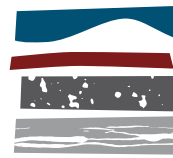
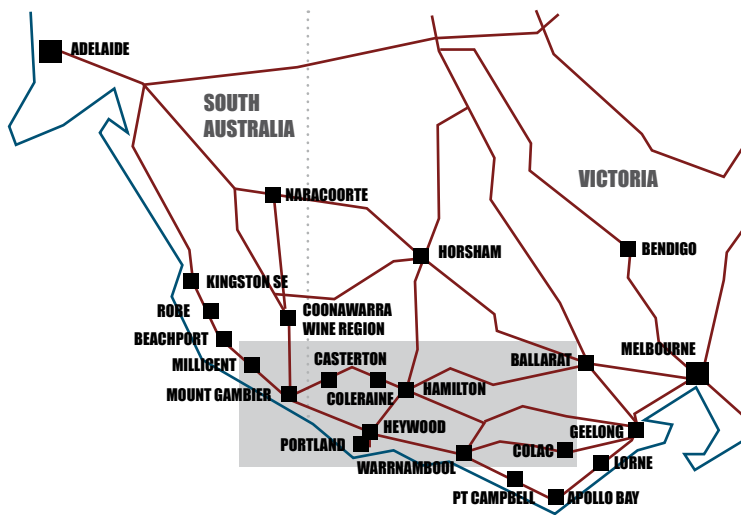
This is a sinkhole similar to that of Harman One, but there is only a small overhang below. It is possible, but difficult, to crawl through the rockfall from Harman One into Harman Two, but there is no tunnel.

#### • Bridge Cave

The Bridge Cave consists of two large sinkholes and associated passages. The best entrance is by means of a rock-fall on the south side of the western sinkhole, as elsewhere the walls are vertical or overhanging.

The western sinkhole is roughly elliptical, and at the western end this leads by various entrances to low-level passages. The western sinkhole is connected to the eastern one by a short tunnel.





# KANAWINKA GLOBAL GEOPARK

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Australia may be referred to as a relatively young nation, but the well-preserved ancient landscape provides many precious windows into the past. The Kanawinka Global Geopark can take you on an amazing journey through this landscape, enabling visitors to travel back in time over thousands and thousands of years.

The surface geology of South Western Victoria and South Eastern South Australia is a striking contrast of sweeping plains and spectacular mountains which are largely the product of volcanic activity. In fact, with six sites of international significance and 14 of national significance, this area is Australia's most extensive volcanic province.

The history of these geological masterpieces stretches back to the Tertiary and Quaternary eras, when great outpourings of volcanic material through vents took place. Lava flows spread evenly across the existing plains, followed valleys, flowed under water, and in some cases forced upwards into rough, stony hills called tumuli, or steeper scoria cones.

In total, the flows cover an area of some 23,000 square km, extending north to the hills beyond Ballarat, and reappearing in a small section of south-eastern South Australia. This area is known as the Newer Volcanics Province, and features nearly 400 individual eruption points, most of which occurred between 4.5 and 2 million years ago.

Many of the eruptions were witnessed by the indigenous peoples of the area who have inhabited this region for up to 45,000 years, and feature prominently in stories of the Dreamtime.

Aboriginal people also made use of the stones from the lava flow to construct channels linking the wetlands, weirs, fish-traps, wind breaks and stone huts, and excellent examples created by the Gunditjmarra people can be found around Western Victoria's Lake Condah region in particular.

Later, during the 1870s and 80s, European settlers utilised the volcanic stone cleared from the land to construct dry stone walls in order to grow crops and introduce stock. Many examples can be found surrounding Corangamite on the Dry Stone Walls Heritage Trail.

The region's spectacular and intriguing volcanic landscape also offers a range of other visitor experiences, from a 45-minute tour to the surface of Mount Gambier's Blue Lake, to the gruelling trek up Mount Schank and down to the crater floor.

In western Victoria, you can go on a chartered boat tour to Lady Julia Percy Island, which has the largest colony of Australian fur seals in the southern hemisphere. Or, take The Alan Marshall Walking Tour of Mount Noorat and the nearby township, or swim in the turquoise-coloured waters of Lake Surprise.

There are also plenty of picturesque picnic and camping spots just waiting to be discovered. Alternatively, you can take your time and spend the night in one of the numerous towns in the Kanawinka Global Geopark.

The Geopark is known as KANAWINKA GEOPARK, meaning Land of Tomorrow from the Buandik people. It is also the name of a geological fault line from Naracoorte Caves to Bass Strait at Portland and a Parish name west of Casterton about 1911 so all levels of the history, Geological, Indigenous and European are brought together in one name.

**The Kanawinka Geopark was declared the 57th Member of the Global Network of National Geoparks assisted by UNESCO on June 22, 2008.**



## Accredited Visitor Information Centres

### Victoria

#### Casterton

Shiels Terrace  
03 5581 2070

#### Colac

Cnr Queen & Murray  
Streets  
03 5231 3730

#### Dunkeld

Parker Street  
03 5577 2558

#### Hamilton

Lonsdale Street  
1800 807 056

#### Nelson

Leake Street  
08 8738 4051

#### Port Campbell

26 Morris Street  
03 5598 6089

#### Port Fairy

Railway Place,  
Bank Street  
03 5568 2682

#### Portland

Lee Breakwater Rd.  
1800 035 567

### Warrnambool

Flagstaff Hill  
Merri Street  
1800 637 725

### South Australia

#### Beachport

Millicent Road  
08 8735 8029

#### Millicent

Mt Gambier Road  
08 8733 0904

#### Mount Gambier

The Lady Nelson  
Jubilee Hwy East  
1800 087 187

#### Penola/Coonawarra

27 Arthur Street  
08 8737 2855



#### Camperdown

Old Court House  
179 Manifold Street  
03 5593 3144

#### Lake Bolac

2110 Glenelg Hwy  
03 5350 2204