

You Yangs Regional Park

An excursion and fieldwork resource for schools



Congratulations for taking the leap outdoors!

Excursions and field trips are an important part of the educational experience for students, offering handson, concrete experiences that are important for reinforcing key concepts taught in the classroom.

Our aim is that every student leaves a park or reserve with a greater appreciation not only of its unique values, but how these are connected to other places and larger issues, and a desire and the know-how to get involved in making a difference.

Our excursion/fieldwork resources aim to help students:

- develop a sense of wonder, curiosity and respect for our parks and the people and environments they support
- develop their knowledge of their own locality and region and how places are connected
- understand the changes that are occurring in our parks and what strategies are being employed to manage these changes
- consider some of the complex interrelationships between the physical environment and the flora, fauna and fungi that live in our parks
- become informed, responsible and active citizens who contribute to the protection of our special places.

This resource is designed to provide teachers with ideas for planning exciting and experiential learning activities out in our beautiful parks, reserves and waterways.

We would love to hear about ways we can improve this resource to support teachers who take their lessons outdoors. Please contact education@parks.vic.gov.au with your feedback.

Why visit?

Just a short drive from the heart of the city of Geelong (22 kilometres), and 55 kilometres south-west of Melbourne, the distinctive granite peaks of the You Yangs Ranges rise from the flat, volcanic plains as part of the southern-most area of the Great Dividing Ranges. The You Yangs Regional Park offers an ideal setting for picnics, magnificent views and walks along the extensive pathways surrounded by nature. It is also a fantastic park for mountain biking. It has two mountain biking areas with over 50 kms of exciting trails catering for riders of all ages and abilities. A permanent orienteering course is also accessible, and designated areas are set aside for rock climbing, abseiling and horse riding.

The You Yangs Range is an important meeting place for the Wathaurong people, and evidence of their occupation and way of life can be found throughout the park. A wide variety of plants and animals are supported within You Yangs Regional Park, and can their habitats can be explored by following any of the walking trails. The park also provides an opportunity for students to study the management strategies used to control the spread of invasive species like boneseed.

For teachers

This self-guided excursion is designed to be linked to the Victorian Curriculum for the subjects of geography, science and history, but can be enjoyed by a wide range of students who want to explore, discover and learn about our parks. It is suitable and scalable from Levels 5–10. Some suggested linkages to the Victorian Curriculum are provided below:

Subject	Level	Content descriptions
Geography	5-6 7-8	Factors that shape places and influence connections Landforms and landscapes
	9-10	Environmental change and management
Science	5-6	Biological sciences
	7-8	Biological sciences
		Earth and space sciences
	9-10	Biological sciences
History	7-8	Aboriginal and Torres Strait Islander peoples and culture

The field trip can be done in two hours, or you can opt to spend a whole day completing multiple activities.

For additional information on the park, download the visitor guide or visit the You Yangs Regional Park webpage for additional information including facilities, maps and images.

Before you go

Make sure you have reviewed the information provided for planning an excursion at http://parkweb.vic.gov.au/learn for safety and permit requirements and have checked the facilities available.

For activities such as bushwalking (including overnight camping) and rock climbing, group sizes are generally restricted to 10 people or less (including leaders). Multiples of 10 are acceptable where campsites cater for larger groups. For appropriate group sizes please refer to the Adventure Activity Standards.

All groups are required to let us know you're coming. Please complete a Group Activity Statement downloadable from http://parkweb.vic.gov.au/learn and email to: groupactivities@parks.vic.gov.au at least four weeks prior to arrival. This will assist us to alert you to any park closures, storm damage or management activities such as planned burning or pest animal programs that may affect your visit. It also forms part of your group's emergency management plan and provided quick access to emergency contacts, should your group need assistance.

You will be visiting a regional park that is an important home to many species of plants and animals, some found in only a few other areas, and others nowhere else in the world! Please remember to keep to the paths, don't pick or take any vegetation and take your rubbish home with you.

Collecting data

We encourage you to gather primary data during your excursion to support a truly immersive and hands-on experience. Pictures, drawings and records of sightings are all easy to take and don't require a research permit. If you'd like to do something that involves moving off the paths, including transects or quadrats, please complete an application for a research permit.

Structuring your excursion

There are two options suitable for school groups. All students should visit the Information Centre to look at the fantastic model of the park. However, this will need to be done in small groups as the space inside is limited.

Option 1: Flinders Peak

Those students that are physically capable should undertake the challenging walk to Flinders Peak, a distance of 3.2 km, 1.5 hours return and the highest point of the You Yangs Range. There are 450 steps to negotiate although not in a continuous climb – at times the gradient is quite steep rising 200 metres. Organise for the bus to take the group to the Turntable Car Park to begin this walk. An interpretative board and boards describing the explorers who found this site appear at the start of the trail. The trail is clearly marked throughout.

This walk provides views over the Western Plains and towards Geelong and Melbourne. Along the way, massive granite boulders in diverse shapes and with varying degrees of erosion flank the trail. A viewing platform along the way provides a view over the Bunjil geoglyph, built in 2006 commemorating the Commonwealth Games in Melbourne. At the peak, 319 metres above sea level, another viewing platform provides 360-degree views to well-labelled destinations.

Option 2: Big Rock Walk

Those students with limited mobility could take the Big Rock walk – 3 km, 1 hour return on a pathway from the Information Centre through the eucalypt plantations. The path winds around Big Rock and, if necessary, students could be collected from the Big Rock car park. This also provides easier access as Big Rock is only 100 metres from the car park. The views from Big Rock take in Geelong and the Western Volcanic Plains.

Learn and discover

1. Landscapes and landforms

The You Yangs Ranges are not the remains of a volcano. More than 400 million years ago, the area now known as the Western Volcanic Plains was under the sea. The You Yangs granite solidified about 365 million years ago. About 200 million years ago, the sea level receded and the overlaying sediments were eroded away, exposing the You Yangs granite as an island in a shallow sea. The granite that forms the You Yangs Ranges was originally a mass of magma that had worked its way up into the surrounding sedimentary rocks. It crystallised before it reached the surface. A very slow cooling rate allowed many large white crystals of feldspar to form. Sometimes the crystals appear to be lined up, probably because the magma was still moving around when they were growing. Granite is a hard rock and so it has resisted erosion better than the rocks that surrounded it. The size and shape of the rounded boulders are controlled by fractures in the granite that resulted from slight shrinkage during cooling. Weathering and erosion of the granite has formed a blanket of sandy soil at the base of the rocks.

The name "You Yangs" comes from the Aboriginal words *Wurdi Youang* or *Ude Youang* which could have any number of meanings: "big mountain in the middle of a plain", "big or large hill", or "bald".

2. People on the land

The Aboriginal community of Wathaurong have camped and hunted on the open, grassy plains for thousands of years. They set fire to the grass to encourage new growth and attract animals to the area for hunting. The area supported kangaroos, dingoes, tiger cats, bandicoots, gliders and native grasslands with abundant wildflowers. Amongst the boulders of the You Yangs Range Wathaurong people enlarged natural hollows in the rocks to form wells that held water in a climate that was quite dry. The rain shadow created by the Otway Ranges to the southwest makes the You Yangs Ranges the driest part of Victoria, south of the Great Dividing Range.

Explorer Matthew Flinders was the first European to visit the You Yangs Ranges. On 1 May 1802, he and three of his men climbed to the highest point. He named it Station Peak but this was later changed to Flinders Peak in his honour. Today, the surrounding Western Volcanic Plains are extensively farmed but the granite outcrops and sandy soils on the You Yangs peaks are not suitable farming.

The uniqueness of the You Yangs has attracted artists to paint them. One of Australia's greatest artists, Fred Williams, spent much of the 1960s painting the You Yangs Ranges as rugged, dramatic, and sparse but unquestionably of the Australian bush.

The You Yangs Regional Park also has a geoglyph constructed by the Australian artist, Andrew Roberts. It depicts Bunjil, the Wathaurong creator spirit, represented by an eagle. It commemorates the Commonwealth Games held in Melbourne in 2006. The geoglyph has a wing span of 100 metres and 1500 tonnes of rock was used to construct it.

Today, Wathaurong people continue to live, practice and strengthen their culture in the Greater Geelong area. The Wathaurong Aboriginal Corporation is a Registered Aboriginal Party, representing the traditional owners of the area. They ensure that Wathaurong culture and connection to place is maintained into the future.

3. A unique ecosystem

The You Yangs Regional Park supports a rich variety of plant species. Tall eucalypts such as manna gum, yellow gum and river red gum on the lower slopes give way to a sparse undergrowth of native shrubs and groundcovers, such as snowy mint bush and drooping cassinia, amongst the blue gum on the higher, boulder

scattered peaks. The plants are adapted to living in shallow soils with low rainfall and tolerate large variations in temperature throughout the year; resulting in low woodland rather than forest.

Patches of red box, grey box, yellow box, red ironbark, cherry ballart, silver and black wattle and drooping she oak also occur. The endangered brittle greenhood orchid is one of 30 species of orchids to be found in the park.

The park provides a range of habitats for wildlife. Keep an eye out for eastern grey kangaroos, echidnas, swamp wallabies, sugar gliders, brushtail and ringtail possums, lizards and koalas. Koalas in the You Yangs have been studied since 2006. Koalas are in about a third of the park, especially where river red gums occur and are monitored by a non-intrusive system of nose pattern identification. The entire population is considered to number around 105 in 2017, down from an estimated 161 in 2007.

More than 200 species of birds have been recorded in the park, including tawny frogmouths, white-naped, white-plumed, New Holland and brown-headed honeyeaters, kookaburras, white-winged choughs, crested shrike-tits, eastern rosellas, crimson rosellas, purple-crowned lorikeets, sulphur-crested cockatoos, eastern yellow robins, jacky winters and scarlet robins.

4. Fire and weeds

The aftermath of the bushfire in 1985 that burnt 80 per cent of the park can still be seen on the blackened tree trunks. This fire also led to a resurgence of South African boneseed (Weed of National Significance) in the park. It was initially planted in the 1950s to reduce erosion, but the yellow glow of the park in spring is evidence of its presence in pest proportions – some 1300 hectares of the 2000 hectare park has been infested. Once boneseed gets a hold in an area of bushland it spreads rapidly, forming a dense cover that smothers native plants and prevents regeneration.

Parks Victoria is removing boneseed from areas of high botanical value and supporting research into methods of biological control. Volunteer groups and schools are also actively involved with the boneseed control program.

Many other introduced plants also occur in the You Yangs. Some have been planted for forestry including sugar gum, swamp yate and brown mallet; others introduced accidentally or have become invasive, such as bridal creeper.

5. Managing the park today

Park management activities aim to maintain or improve this habitat and protect the geological rock formations that make the park special. It's a team effort, with rangers working alongside volunteers. In 1987 a program known as "Adopt a Block" began where once a year, volunteer organisations clear one hectare of boneseed.

Other management activities involve the control of weeds and pest species. Rabbits have been controlled since before the park's establishment, however they are almost impossible to remove completely due to the surrounding farmland. Other feral (non-native) animals include foxes, cats and dogs.

The maintenance and improvement of visitor facilities is another big part of park management. Parks are for the enjoyment and education of people, as well as to protect the natural and cultural values found within them, so it's important to provide and maintain car parking, toilets, picnic tables and other facilities to support visits to our parks. The Information Centre and interpretive panels are a way that Parks Victoria seeks to engage visitors to the park in learning about the place.

Discover and reflect

You might like to enhance your excursion with some activities and inquiries that help students record and extend their learning back into the classroom. You might like to complete one or more of the following:

- 1. Take photos to create an annotated photo log or poster of your field trip to share with classmates. You could use social media to share it with friends.
- 2. Map your field trip using software such as Scribble maps or Tour Builder, annotating what you've learned at various points.
- 3. As you walk in the park, note and draw/photograph the different vegetation types seen. Indicate if these are naturally occurring or have been introduced by humans.
- 4. Create a sound map of various points around the park, taking a series of 30-second audio recordings, referenced back to points on a map. Students can also record their audio observations on paper, using lines made from a central point to indicate the direction, type and frequency of sounds they hear, and whether it adds or detracts from the environment.
- 5. Create a series of diagrams to show how the You Yangs Range developed. You will need to research a volcanic environment and, in particular, why the magma did not reach the surface.
- 6. On the walk to Flinders Peak, note and draw/photograph a number of rock formations. Research the erosional processes occurring on the rocks.
- 7. Artist Fred Williams (1927–1982) painted the landscape of the You Yangs in the 1960s. Visit https://www.artgallery.nsw.gov.au/collection/works/?artist_id=williams-fred and discuss his representation of the landscape.
- Use this site
 https://www.environment.gov.au/biodiversity/invasive/weeds/publications/guidelines/wons/pubs/c-monilifera-monilifera.pdf to research the impact of boneseed and develop a poster to inform the public about the invasive species.
- 9. Interview the park ranger or volunteer group member about their connection to the park. You could do this via Skype before or after the field trip.
- 10. Develop a plan for a new, larger Information Centre for the park, outlining how it would help people connect with the values of the place. Consider how you might help people with special needs experience the park.
- 11. Discuss the role parks play in connecting people to their environment, or influencing people's personal relationships to nature.

Get active

Contact the ParkConnect team if you would like to get your students involved in some hands-on volunteer activities in You Yangs Regional Park.

Parks Victoria respectfully acknowledges the Traditional Owners of what is now known as Victoria. For many thousands of years they have lived in harmony with, and carefully managed the Country for which they have a deep spiritual connection. Contemporary Aboriginal people are proud of their ancestry and in addition to their inherent rights, they have spiritual and cultural obligations to ensure that their ancestral land and culture is managed responsibly and appropriately.