

YOOKAMURRA

Wildlife Sanctuary



EDUCATION PROGRAM



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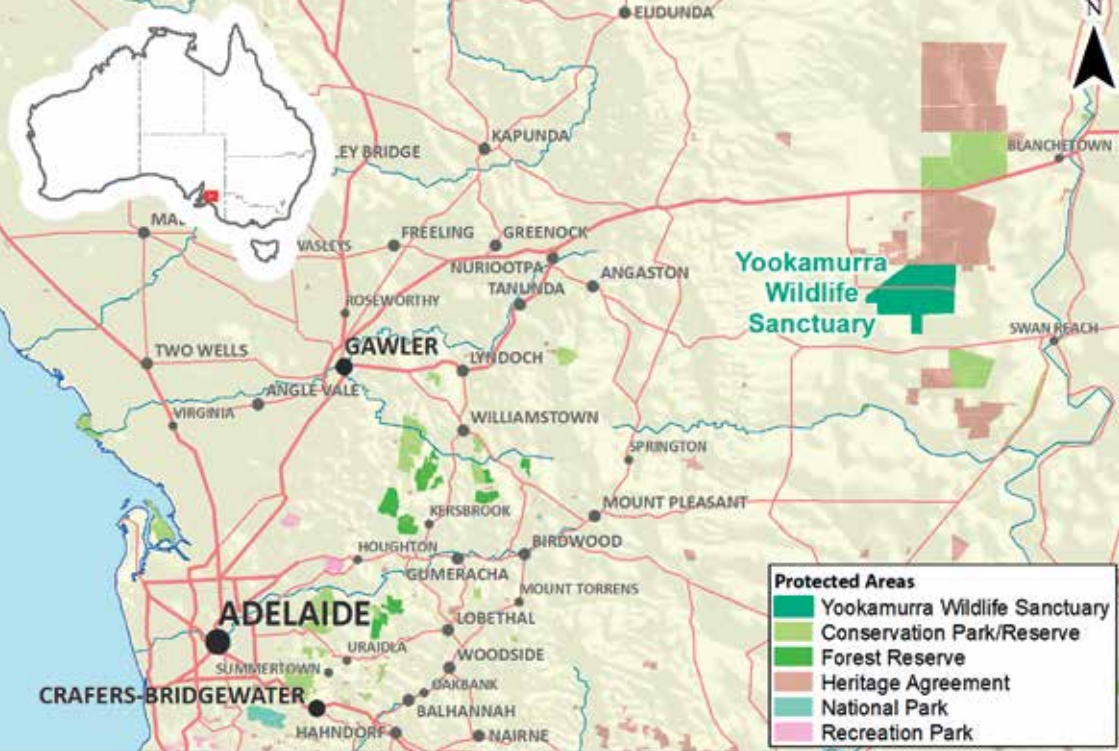
AUSTRALIAN WILDLIFE CONSERVANCY

Australian Wildlife Conservancy is the largest private, not-for-profit owner and/or manager of land for conservation in Australia, protecting endangered wildlife across 29 properties throughout the nation, covering more than 6.5 million hectares. We do this by:

- Establishing sanctuaries by acquiring land, and through partnerships with landholders, Traditional Owners and Governments;
- Implementing practical land management (feral animal control, weed control and fire management) coupled with solid scientific research and practices to produce measurable results;
- Conducting strategic research on key issues affecting biodiversity, alone or in collaboration with universities, museums, government, CSIRO and a range of other science organisations.
- Promoting public awareness and conducting education programs on the plight of Australia's threatened wildlife.

Yookamurra Wildlife Sanctuary is the only AWC property with a dedicated education program for primary to tertiary students.

AWC is helping to define a new model of conservation in Australia and you can help by choosing Yookamurra as your next school camp destination. To find out more please visit www.australianwildlife.org.



YOOKAMURRA WILDLIFE SANCTUARY

Yookamurra Wildlife Sanctuary is located 130 kilometres northeast of Adelaide. Situated between the Barossa Valley and the Murray River, in an area known as the Murraylands, Yookamurra is approximately a two-hour drive from the Adelaide CBD.

Yookamurra Wildlife Sanctuary was established in 1989 by Earth Sanctuaries Ltd to help prevent the dramatic decline of native wildlife that once inhabited the mallee ecosystem of Southern Australia. AWC acquired the property in 2002.

The property encompasses over 5,000 hectares of mixed mallee woodland and includes 1,100 hectares enclosed by a feral predator-proof fence.

The region is classified as semi-arid with an average annual rainfall of approximately 270 millimetres per year.

Most school groups stay during the cooler parts of the year (April to October), as temperatures during the summer months regularly exceed 40°C. During the winter months, days are short (7am to 5.30pm) and cool (between -5°C and 18°C), with averages between 3°C to 16°C. Rain can occur at any time during the year but is more likely in winter.

Many plant and animal species rely on mallee habitats for survival, however, since European settlement most of Australia's mallee has been cleared for agriculture. As such, remnant mallee habitat is essential for the preservation of many endemic species. Much of the remaining remnant habitat today is regrowth mallee, less than 200 years old, that has regenerated following fire or clearing. Yookamurra is particularly special in that it protects some



Yookamurra also protects a suite of other species including:



21
Mammal species



121
Bird species



64
Reptile species



4
Amphibian species



164
Plant species



10
Threatened species

of the most intact, high quality, old-growth mallee in the southeast region of Australia, with some trees estimated to be at least 600 years old. Old-growth mallee is not only valued for its age and size, but for its hollows and fallen limbs which provide essential habitat for many of our native species.

As part of AWC's science program, four threatened mammal species – the Numbat, Brush-tailed Bettong, Bilby and Burrowing Bettong – have been reintroduced into the feral predator-free area and live in the mallee, just as they did more than 100 years ago.

All of the animals found at Yookamurra are wild, so even though we see evidence of their presence every day, when we actually do see them it is very exciting and often unexpected.

Every school group will see something different, and there is no guarantee as to what you will see and when. However, during the day a variety of mallee birds are often noticed, and if you are fortunate to be here at night, then you will no doubt see our two species of bettongs.

In addition to the education program, AWC staff at Yookamurra also carry out ecological surveys and land management programs throughout the year, and a number of research projects have also been conducted on Yookamurra. Since 2014, an Interpretations Internship program has been providing recent university science graduates valuable field experience in conservation education and community engagement. The intern plays a pivotal role in our education program.

Yookamurra also hosts biannual open days for the general public.



Many of our science-based guided projects centre on the four threatened mammal species that have been reintroduced into Yookamurra's feral-free area.

Brush-tailed Bettong or Woylie (*Bettongia penicillata*)

The first species to be reintroduced to Yookamurra Wildlife Sanctuary. Classified as Endangered, their numbers have declined in the last 15 years from 200,000 to fewer than 15,000 individuals. They are now largely confined to a small area of southwest Australia. They build nests under shrubs and grasses and are mostly solitary, though nest sharing has been noted. Their diet consists of mainly fungi but also insects, seeds, tubers, fruit and seeds. AWC protects almost 10 percent of the world's remaining Woylie population.



Numbat (*Myrmecobius fasciatus*)

The second species to be reintroduced to Yookamurra Sanctuary. Classified as Endangered, Numbats were once widespread but are now reduced to two small populations in WA, and at AWC sanctuaries. They are solitary, diurnal animals that shelter in burrows or hollow logs. Their diet consists exclusively of termites. Each Numbat requires around 20,000 termites a day!



Greater Bilby (*Macrotis lagotis*)

Greater Bilbies once lived across 70 per cent of Australia. This iconic animal now covers less than 20 per cent of its former range and is considered Vulnerable. Once common throughout the Mallee region, they are now extinct outside of Yookamurra Wildlife Sanctuary in this region of South Australia. Bilbies are solitary creatures and like to shelter in burrows. Their diet consists of insects and their larvae, seeds, bulbs, fruit and fungi.



Burrowing Bettong or Boodie (*Bettongia lesueur*)

Once widespread throughout western and central Australia, this bettong is now classified as Threatened and now only survives on a few off-shore islands that are free of foxes and feral cats, and at AWC sanctuaries. It is the only bettong to shelter underground, and lives in a warren similar to rabbits. Quite social, their diet consists of tubers, bulbs, fungi, seeds, fruit and browse.



YOOKAMURRA EDUCATION PROGRAM

Our camp facilities are located within the feral predator-proof fence. This is an exclusive opportunity to access this area. We have developed a program to engage students to learn about endangered wildlife and ways of ensuring its survival. Each camp has presentations, a guided ecology walk, spotlight walk (if staying overnight) and a choice of guided projects specifically designed to provide scientific outcomes.

Yookamurra Wildlife Sanctuary is unique in that not only are we teaching students about Australian ecology and wildlife, we are actively involved in the conservation of Australia's most endangered mammals and ecosystems. All walks, projects and activities will be led by AWC ecologists and recent science graduates, whose work

ensures access to the most up-to-date information.

We provide a program that is fun and engaging for your students, with strong links to STEM for both primary and secondary students. With the aim of providing more scientific outcomes for students, we have developed a series of guided projects (listed on the following page), that are aligned with the Australian Curriculum, which encourage students to experience and understand the complex interactions that make up our unique mallee ecosystem.

Programs, projects and activities can be modified to suit your particular curriculum and educational needs upon request.

WHAT YOUR CAMP MIGHT LOOK LIKE?



Day trip from nearby Riverland, Barossa and Murraylands region:

AM

- 10:00 Arrive at Yookamurra; welcome and safety induction | 15 minutes
- 10:15 AWC/Yookamurra Presentation | 30 minutes
- 10:45 Morning tea | 15 minutes
- 11:00 Mallee ecology walk | 1 hour

PM

- 12:00 Lunch | 15 minutes
- 12:15 Science-based project | 1.5 hours
- 1:45 Reflection time | 15 minutes
- 2:00 Depart Yookamurra

Overnight Camp:

DAY 1

AM

- 10:00 Arrive at Yookamurra; welcome and safety induction | 15 minutes
- 10:15 AWC/Yookamurra presentation Everyone | 30 minutes
- 10:45 Morning tea | 15 minutes
- 11:00 Mallee ecology walk | 2 groups 1.5 hours

PM

- 12:30 Lunch | 30 minutes
- 1:00 Group 1 Science-based project 1
Group 2 Science-based project 2 2 hours
- 3:00 Afternoon tea (30 minutes)
- 3:30 Group 1 Science-based project 2
Group 2 Science-based project 1 2 hours
- 5:30 Free time/dinner prep | 30 minutes
- 6:00 Dinner and clean up | 1 hour
- 7:00 Spotlight walk | 2 groups | 1.5 hours
- 8:30 Supper
- 9:00 Guided activity/game | 1 hour
- 10:00 Lights out

DAY 2

AM

- 7:00 Breakfast and dorm pack up
- 8:30 Guided activity/game | 30 minutes
- 9:00 Quiz | 30 minutes
- 9:30 Clean up and reflection time 30 minutes
- 10:00 Depart Yookamurra



PROJECTS

The overall aim of these projects are for students to:

- Gain a practical understanding of how science works and how it can be applied in management and conservation of biodiversity.
- Gain fieldwork skills including sampling, use of various equipment and identification of possible errors.
- Be encouraged to think critically and creatively about what they are doing and what they are trying to achieve.

We use an applied learning pedagogy that involves various collaborative outcomes. Each group spends an hour or so in the field making their observations and measurements, and then returns to the education centre to further analyse their collected data and to share their findings with their peers.

Throughout all the projects we encourage students to think critically about what they are doing and what they wish to achieve. How can this data be used? Where is it appropriate? Are there errors involved? What other options are there? What does it tell us?

This aligns strongly with the 'Critical and Creative Thinking' general capabilities section of the Australian Curriculum. We also have strong links to Science Inquiry Skills, Biological Sciences and Outdoor Education curricula. A stay at Yookamurra and completion of one of our projects strongly demonstrates that science is not just an abstract body of knowledge, but is used by many to improve and develop solutions to various questions and problems. Thus it very sharply presents science as a human endeavour.



Each project listed here is of equal interest, fun and effort. Some have been specifically designed for upper high school students, however, most have been designed so that they can be tailored to any age group. A workbook has been developed for each project, which will be emailed to the teacher in charge to print out and distribute to all students prior to the camp.

WHAT SCAT IS THAT?

One of our most popular projects for all age groups. Students discover how scats can be used to tell us about the animals that made them and their role in the ecosystem. Using quadrats, students safely collect scats and use identification methods to examine them to determine What Scat is That?

FERAL CAT-ASTROPHE

This project provides an opportunity to learn more about the impact feral cats have on our native wildlife. Students set

up their own remote sensor camera inside the predator-proof fence, and then use previously collected remote camera images to identify and compare species inside and outside the fenced area. Suitable for all ages.

FINDING FRANK

A project particularly popular with primary and middle high school students. Students use GPS and radiotracking equipment to locate Frank (above) in the field, and then use a variety of processing equipment to gather health information about Frank.

THE BURNING QUESTION

A project for middle and upper high school students to investigate fire ecology and history in the mallee. Students use scientific methodology, such as transects and measurements, to discover the age of our mallee trees and fire frequency in the landscape.



EARTH MOVING MAMMALS

A project for middle and upper high school students to investigate the ecosystem engineering characteristics of our threatened mammal species such as the Bettong and Bilby. Students will learn how to identify animal diggings, then use transects, quadrats and simple maths equations to investigate why they are called 'ecosystem engineers'.

MALLEE MYSTERY

This project enables high school students to explore the differences between old-growth and new-growth mallee. Students undertake a habitat assessment using scientific methodology and equipment such as quadrats and tape measures to determine whether the new-growth mallee habitat has been able to recover to its previous state.

These projects can be shortened into one-hour activities with an accompanying short, fun worksheet.

OTHER ACTIVITIES

We have also developed a number of shorter activities that can be incorporated into any of our packages, free of charge, including;

SPLAT!

Students will put their animal identification skills to the test in this fun, interactive game.

YOOKAMURRA QUIZ

Students will work in small teams to see who learnt the most at Yookamurra.

WHOSE EAR IS THAT?

Most of the time when we are surveying for animals we only get a flash of a tail or a bit of an ear. Guess the animals of Yookamurra from just their ears.

NATIVE vs FERAL

Students will go through a range of photos of animals and work out whether the animals are native, feral, domestic or livestock- this will start a discussion about how we see these animals.

BUILD-A-BILBY MAGNET or MAKE YOUR OWN POSTCARD

A fun creative take-home activity, to remember their time at Yookamurra.

WARDS WEED WARRIORS

Join forces with Yookamurra staff to eradicate this weed from the village area.



ACCOMMODATION AND FACILITIES

School groups get exclusive access to all of our facilities during their stay. We can accommodate up to 37 people at any one time. There are four accommodation blocks, each with four rooms.

Each room consists of two single beds (with mattresses), a small wardrobe, a table and chair. One room in each block has a set of bunk beds and a single bed.

Yookamurra is run on solar power with a back-up generator, and power is available to all rooms. While there is evaporative cooling in all rooms, there are no heaters but they are well insulated. There is gas heating in the Education Centre. Everyone will need to bring their own sleeping bag and pillow.

All dining and food preparation is done in

the purpose-built Education Centre. This is a large room with seating and dining tables, and a fully equipped, commercial-style kitchen. The kitchen has a gas oven and stovetop, toasters, upright fridge/freezer and a large walk-in cool room. We also have an undercover outdoor barbecue and deck area.

The amenities block is located a short walk from the accommodation blocks and Education Centre. There are four separate bathrooms, each with a flushing toilet, hand basin and hot shower. A site map, including an accommodation layout, can be provided upon request.

No WiFi is available to students of school groups.



HEALTH AND SAFETY

A camp risk assessment is prepared and sent to the teacher-in-charge prior to the camp. This risk assessment covers all known and perceived risks associated with the camp, and shows the control methods in place to minimise them.

All Yookamurra staff and interns have current Senior First Aid qualifications and can supply basic first aid equipment. The visiting school must supply any prescription or specialised equipment. This remains the responsibility of the supervising teachers. In the case of an emergency, the sanctuary's emergency procedures will be implemented. These will be discussed with visitors upon arrival at Yookamurra.

There will be a first aid kit with each group at all times, and all groups will be in radio contact with sanctuary headquarters at all times.

The closest hospital is in Angaston, 60 kilometres west of Yookamurra (45 minutes' drive).

Yookamurra follows strict cleaning protocols, ensuring safe and hygienic food-grade kitchen and barbecue facilities. All Yookamurra staff and interns have been trained in safe food handling procedures and can provide guidance if required.

Yookamurra cannot guarantee a completely nut-free environment.



PACKAGES AND COSTS

All packages are self-catered with exclusive access to our fully equipped , commercial-style kitchen and barbecue facilities. All prices are GST inclusive. Teachers and supervising adults are free at a rate of one adult per eight students, with any additional adults charged for accommodation only. Our current prices are as follows:

Option 1: Day Trip

\$33 per student (additional adults free)

Arrive morning, depart late afternoon. Price includes presentation, guided mallee ecology walk, choice of one science-based guided project.

Option 2: Overnight Camp

\$42.50 per student (\$15 per additional adult)

Arrive late afternoon Day 1, depart after breakfast Day 2. Price includes presentation, guided mallee ecology walk, guided spotlight walk.

Option 3: Day/Overnight Camp

\$59 per student (\$15 per additional adult)

Arrive morning Day 1, depart before lunch Day 2. This comprehensive package is our most popular and includes presentation, guided mallee ecology walk, choice of two science-based guided projects, guided spotlight walk and other activities.

PRE-CAMP READING AND RESOURCES

The following resources can provide valuable background information and help students put their camp, project and activities into context, and allow them to gain as much from this experience as possible. If you require any additional information, either before or even after the camp, please don't hesitate to contact us.

Online

Australian Wildlife Conservancy – general information about AWC
www.australianwildlife.org/

Australian Wildlife Conservancy – specific information about Yookamurra Sanctuary
www.australianwildlife.org/where-we-work/yookamurra/

Australian Wildlife Conservancy – specific information about wildlife protected at Yookamurra and other AWC properties
www.australianwildlife.org/wildlife/

SA Murray Darling Basin NRM Education. Activities, links to school programs, work experience and career pathways
www.naturalresources.sa.gov.au/samurraydarlingbasin/education

BOOKING PROCESS

1. Please contact us for any initial enquiries. Your preferred dates will be accommodated where possible, however, due to other sanctuary operations, such as land management programs, ecological surveys and other school camps, there may need to be some flexibility.
2. To book your preferred date, student numbers must be confirmed prior to making a booking. This is important so we avoid last minute cancellations.
3. Once student numbers have been confirmed, please contact us to book and confirm your preferred date. To allow for planning this ideally needs to be done eight weeks prior to the camp.
4. Once your date has been booked, the risk assessment, booking confirmation information and other camp information will be emailed out to the teacher-in-charge. If a project is part of the camp, then the project workbook will also be sent out to be printed and distributed to students prior to the camp.
5. At least one week prior to the camp, the risk assessment needs to be returned, medical conditions and confirmation of numbers needs to be communicated with AWC staff.
6. When the camp has been completed, we will send an invoice to the teacher-in-charge, for payment.



WHAT TO BRING

ESSENTIAL

- Single fitted sheet
- Warm sleeping bag and/or doona/blanket
- Pillow and pillowcase
- Long pants, long-sleeved shirts
- Sturdy, fully enclosed, comfortable boots/shoes for walking
- Warm clothes if visiting from April-September (including thermals, jackets, beanie, and gloves)
- Raincoat
- Toiletries, towel, soap, medication, sunscreen (SPF30+) and insect repellent
- Torch for navigating around the village and for the night walk
- 1Litre water bottle
- Wide-brimmed hat
- Notebook, pen and pencil
- Food for the camp (tea, coffee, sugar is supplied in the kitchen)

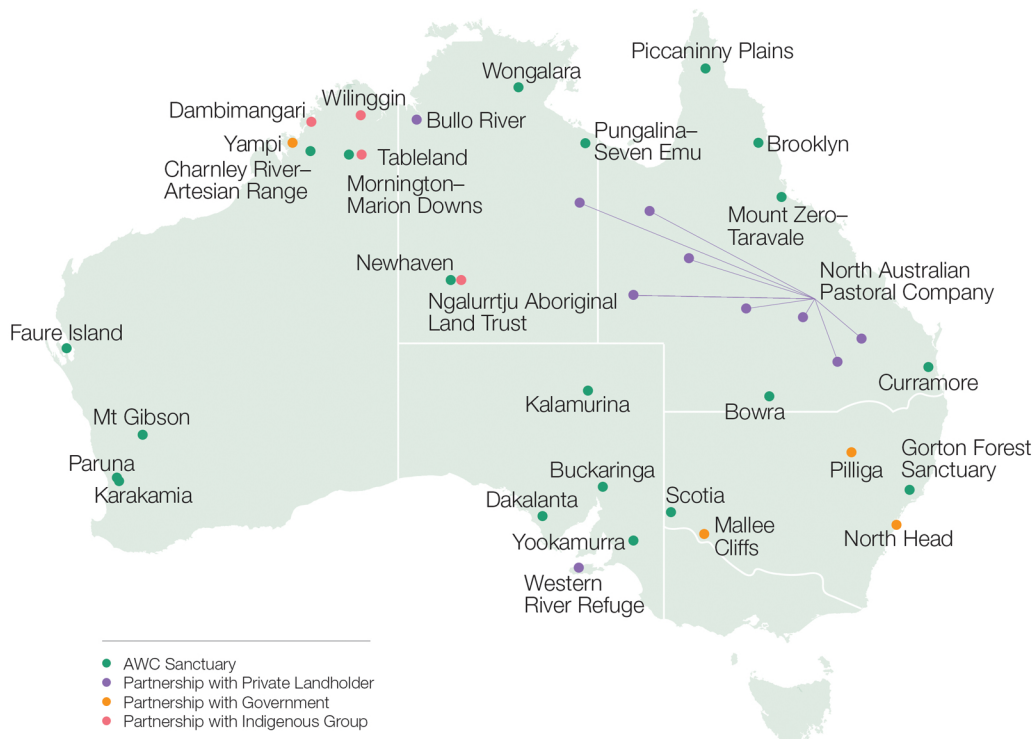
OPTIONAL

- Binoculars
- Camera

WHAT NOT TO BRING

- Hair dryers or straighteners – these consume too much power for our solar system
- Chewing gum
- Energy drinks (either caffeine or guarana based)
- Alcohol
- Illicit drugs of ANY kind

WHERE WE WORK



CONTACT US

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