

# 2023 Ecology and Conservation Internship Program

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## 1. About AWC

Australian Wildlife Conservancy (AWC) is a global leader in conservation, providing hope for Australia's wildlife with a science-informed, land management partnership approach which delivers high impact results. We protect endangered wildlife across 12.5 million hectares in iconic regions such as the Kimberley, Cape York, the Top End and Kati Thanda-Lake Eyre. Recognising that 'business as usual' for conservation in Australia will mean additional extinctions, AWC is developing and implementing a new model for conservation.

AWC's mission - to deliver effective conservation for all native animal species and their habitats - is achieved by:

- **Operations** – delivering effective large-scale land management including fire management, feral animal control, weed control and infrastructure management.
- **Science** – delivering a nationally-coherent program of ecological surveys with a focus on monitoring key conservation assets and threats, conducting applied research relevant to wildlife conservation, implementing conservation programs including reintroductions, and providing advice to management.
- **Fundraising** – mobilising finance (primarily, tax deductible donations) from the general public and philanthropists including through effective communication of AWC conservation programs.

AWC's work is guided by the following values. In pursuing our mission, we are:

- **Informed** – working together to acquire and apply evidence, knowledge and experience
- **Respectful** – demonstrating care, recognition and integrity
- **Accountable** – taking ownership of our actions and outcomes
- **Dedicated** – committed to delivering effective outcomes, with resilience and tenacity
- **Innovative** – applying creative thinking for effective solutions
- **Sustainable** – delivering long-term financial and ecological viability.

The delivery of AWC's mission is highly reliant on all AWC working collaboratively with each other under a model called *OneAWC*. *OneAWC* is defined as 'a cohesive, engaged, collaborative, high performing group guided by strong, effective leaders. A group of people who all understand AWC's mission, vision and their role in contributing to the achievement of mission and vision, all connected and working towards a common purpose, guided by a set of shared values'.

## 2. About the internship program

AWC's science program plays a fundamental role in helping AWC meet its mission. AWC ecologists:

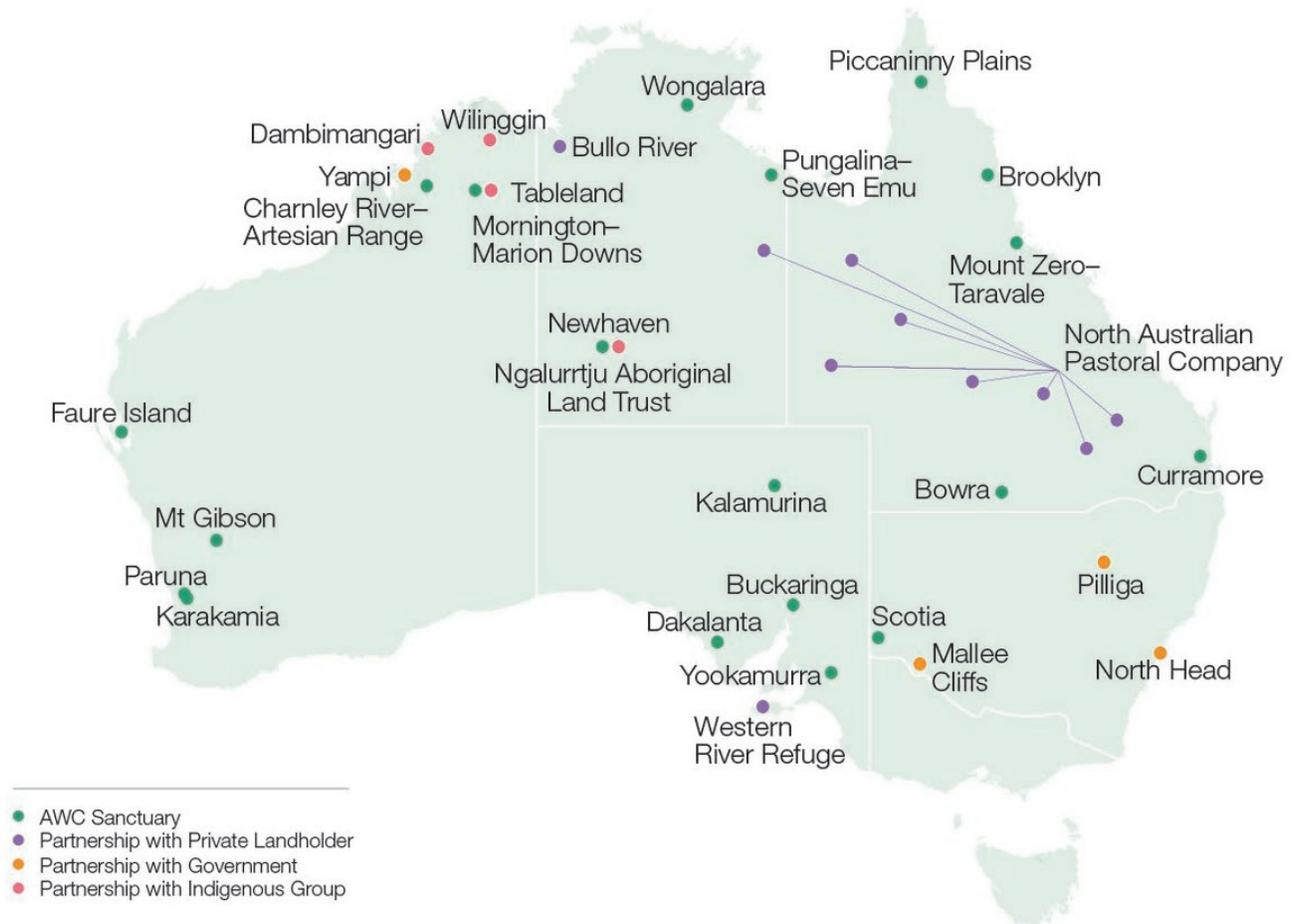
- Measure and evaluate the ecological health of AWC's wildlife sanctuaries and partnership sites;
- Conduct research on key issues relevant to the conservation of wildlife;
- Plan, implement and monitor reintroductions,
- Contribute to conservation and land management strategies, and report on their outcomes and
- Assist with AWC's communication and fundraising activities which may include participation in supporter events, media and webinars.

AWC offers opportunities for promising graduate students to get involved in the science program and gain valuable field experience in conservation research via the Ecology & Conservation Internship Program. In 2023, AWC will offer **up to twenty-one internships** of 4.5 – 6 months duration, across its network of sanctuaries. Each internship has been designed to provide an exciting training program. The program is designed to introduce conservation biologists to a variety of sanctuaries with a host of different ecosystems, flora and fauna, field techniques, and conservation issues. The internships provide a modest living stipend and travel assistance for the duration of the program. A relocation allowance is also provided at the beginning and end of the internship placement.

Below are the proposed intake periods for 2023's Ecology & Conservation Internship Program. These dates *may vary* however, this will be discussed with the successful candidates at the interview and offer stages.

*\*NB: AWC provided accommodation may not be available at some locations. An additional accommodation/travel allowance may be provided to the intern to support other arrangements. This will be discussed further with the successful applicants.*

<b><u>Internship Placements</u></b>	<b><u>Intake period</u></b>
<b>North-west Interns</b> will spend <b>6 months</b> at Mornington, Marion Downs, Tableland, Charnley River-Artesian Range, Yampi Sound Training Area[WA] with possible trips to other NW managed and partnership properties. Note, there is also a <i>possibility</i> of a few weeks at Newhaven [NT] during the program. This will be discussed further with the successful candidate.	1. April – September 2023
<b>North-east Interns</b> will spend <b>5 months</b> based in Cairns* with trips to Brooklyn, Piccaninny Plains, Mt Zero-Taravale, Bowra and Curramore [QLD], Pungalina Seven-Emu, Bullo River Station and/or Wongalara [NT].	1. March – July 2023 2. July – December 2023
<b>South-west Interns (Karakamia, Paruna and Faure Island)</b> will spend <b>6 months</b> at Karakamia, Paruna and Faure Island [WA] with possible brief visits to Mt Gibson [WA].	1. February – July 2023 2. July – December 2023
<b>South-west Interns (Mt Gibson)</b> will spend <b>6 months</b> based at Mt Gibson [WA], with possible brief visits to one or more of the other south-west sanctuaries.	1. February – July 2023 2. July – December 2023
<b>Central and South Interns (Yookamurra, Kalamurina, Buckaringa, Dakalanta and Kangaroo Island)</b> will spend <b>5 months</b> based at Yookamurra [SA], with trips to one or more of the other central and south sanctuaries.	1. February – June 2023 2. August – December 2023
<b>Central and South Interns (Newhaven)</b> will spend <b>5 months</b> based at Newhaven [NT], with possible trips to one or more of the central and south sanctuaries.	1. February – July 2023 2. July – December 2023
<b>South-east Interns (Mallee Cliffs, Pilliga and Scotia)</b> will spend <b>5 months</b> based at Mallee Cliffs NP*, the Pilliga* and Scotia [NSW].	1. February – June 2023 2. August – December 2023
<b>South-east (North Head) Interns</b> will spend <b>5 months</b> based at North Head [Sydney, NSW]*, with possible trips to one or more of the other NSW sanctuaries.	1. March – July 2023 2. August – December 2023
<b>National Science Intern</b> will spend 6 months in an office-based environment (predominately) with possible trips to AWC sanctuaries or partnership sites. This placement is still to be confirmed. Further details will be discussed with the potential candidates.	1. March – August 2023



### 3. Training program

AWC has constructed a training program that will:

- Enable Interns to experience a range of Australian ecosystems, and associated flora and fauna;
- Provide experience with a wide variety of field techniques including:
  - Different types of survey and trapping techniques;
  - The handling of many different types of animals;
  - Specialist skills such as pit tag insertion, DNA sampling, animal husbandry, radio- and GPS-tracking.

The Intern will be mentored by a team of experienced ecologists, who will provide on-going assessment throughout the training program. At the end of the training program, the Intern's progress will be evaluated, and an assessment report provided.

#### 4. Intern supervision

Supervisors for interns in 2023 are listed below:

North-west:	Dr Skye Cameron, Dr Pippa Kern, Dr Tom Sayers, Ruby Albury, Joseph Potter, Naomi Blondel
North-east:	Dr Alexander Watson, Dr Manuela Fischer, Dr Eridani Mulder, Dr Ana Palma, Andy Howe, Felicity L’Hotellier, Christine Mauger
South-west:	Dr Amanda Bourne, Dr Sophia Callander, Dr Bryony Palmer, Joshua Hungerford
South-west (Mt Gibson):	Dr Amanda Bourne, Dr Sophia Callander, Georgia Volck, Georgina Anderson, Phoebe Dickins
Central and South:	Helen Crisp, Dr Alexandra Ross, Keith Bellchambers
Central and South (Newhaven):	Helen Crisp, Aliesha Dodson, Samantha Mulvena
South-east:	Dr Greg Holland, Dr Vicki Stokes, Rachel Ladd
South-east (North Head):	Dr Greg Holland, Dr Viyanna Leo, Aiden Wright
National Science:	Dr Liana Joseph, Terry Webb, Rigel Jensen, Jeanette Kemp

#### 5. Required skills/selection criteria

- A Bachelor’s degree with Honours (or equivalent experience) in an ecology/conservation program (e.g. BSc Hons)
- Strong commitment to wildlife conservation
- Fauna and flora survey experience
- Demonstrated capacity to live and work in remote areas (including extended periods camping in the field whilst undertaking surveys) with small groups of people
- Demonstrated capacity to diligently collect and manage data
- Understanding of, and ability to learn identification of Australian flora and fauna
- Physically capable to undertake strenuous fieldwork and possessing a high level of fitness
- Preparedness and capacity to follow OHS and animal ethics procedures
- Ability to conduct fieldwork for extended hours at night
- Valid manual Australian (or internationally recognised) drivers’ licence and experience driving manual vehicles
- Fluency in English
- Internships are open to all applicants with the right to work in Australia (appropriate visa, permanent residency etc), though noting key criteria is an understanding of Australian flora and fauna

*Individuals of Indigenous background are encouraged to apply.*

## 6. How to apply

To submit an application, visit [www.australianwildlife.org/work-with-awc/careers/](http://www.australianwildlife.org/work-with-awc/careers/) to complete an online application form. AWC highly encourages applicants to apply for as many regions/intakes as desired. Applicants will have the opportunity to select regions and intakes via the form.

Your application will need to include two separate documents to be uploaded. Applications that do not meet these requirements will not be accepted. **Applications must be submitted by Saturday 1 October 2022**

1. Your CV or resume
2. Two-part covering letter
  - a. Explaining your interest in applying for the internship program (max. one page)
  - b. Briefly addressing each of the selection criteria listed above (max. two pages)

Please note:

1. Applicants must be an Australian citizen/permanent resident or have a suitable visa in place in order to apply for the internship program. Sponsorship is not available.
2. If you apply for this role, AWC will include you in its ongoing updates and communications about its events, activities and fundraising initiatives. You may opt out of these communications at any time.
3. Any application submitted to AWC will be handled in accordance with our Privacy Policy, available at [www.australianwildlife.org/privacy](http://www.australianwildlife.org/privacy). By providing us with your contact details, your consent to receive communications and direct educational material will remain current until you advise us otherwise.
4. Applicants must be able to comply with AWC vaccination policy which is available on request.

## 7. Key contacts

For **general enquiries**, please email [intern@australianwildlife.org](mailto:intern@australianwildlife.org)

For region-specific enquiries, please see direct contacts below:

North-west:	Dr Pippa Kern, Wildlife Ecologist <a href="mailto:Pippa.Kern@australianwildlife.org">Pippa.Kern@australianwildlife.org</a>
North-east:	Andy Howe, Senior Field Ecologist <a href="mailto:Andrew.Howe@australianwildlife.org">Andrew.Howe@australianwildlife.org</a>
South-west:	Dr Bryony Palmer, Wildlife Ecologist <a href="mailto:Bryony.Palmer@australianwildlife.org">Bryony.Palmer@australianwildlife.org</a>
South-west (Mt Gibson):	Georgia Volck, Senior Field Ecologist <a href="mailto:Georgia.Volck@australianwildlife.org">Georgia.Volck@australianwildlife.org</a>
Central and South:	Dr Alexandra Ross, Wildlife Ecologist <a href="mailto:Alexandra.Ross@australianwildlife.org">Alexandra.Ross@australianwildlife.org</a>
Central and South (Newhaven):	Kirsten Skinner, Wildlife Ecologist <a href="mailto:Kirsten.Skinner@australianwildlife.org">Kirsten.Skinner@australianwildlife.org</a>
South-east:	Dr Vicki Stokes, Senior Wildlife Ecologist <a href="mailto:Vicki.Stokes@australianwildlife.org">Vicki.Stokes@australianwildlife.org</a>
South-east (North Head):	Dr Viyanna Leo, Wildlife Ecologist <a href="mailto:Viyanna.Leo@australianwildlife.org">Viyanna.Leo@australianwildlife.org</a>
National Science:	Dr Liana Joseph, National Science Manager <a href="mailto:Liana.Joseph@australianwildlife.org">Liana.Joseph@australianwildlife.org</a>

## 8. Internship locations

### a. North-west

**Mornington, Marion Downs** and **Tableland** protect almost 900,000 ha of the central Kimberley, WA. Massive sandstone mesas and heavily folded ranges overlook savanna plains and a large section of the mighty Fitzroy River. Mornington's Wildlife Link Centre for Research and Conservation is the base for an award-winning conservation program that is helping to protect iconic species like the Gouldian Finch, Northern Quoll and Purple-crowned Fairy-wren.

**Charnley River-Artesian Range** lies in the northwest Kimberley, the only part of Australia that hasn't experienced mammal extinctions in the past 200 years. Its rugged sandstone and volcanic ranges protect a suite of regionally endemic species (such as Golden-backed Tree-rat, Wyulda, Monjon, Black Grasswren, and Western Giant Cave Gecko), as well as threatened mammal species that have declined significantly from other parts of northern Australia (e.g. Northern Quoll, Golden Bandicoot). AWC's science program focuses on inventory and monitoring, plus research on the impacts of fire and feral cats on this unique community.

**Yampi Sound Training Area** is managed under an agreement with the Department of Defence, in partnership with the Dambimangari Aboriginal Corporation. Yampi consists of a diversity of habitats including lowland plains and riparian areas, rugged dissected sandstone ranges with rainforest pockets, and coastal habitats such as mangroves and mudflats. These diverse landscapes provide refuge habitat for threatened species (e.g. Northern Quoll, Kimberley Brush-tailed Phascogale, Western Partridge Pigeon, Golden Bandicoot), as well as endemic species such as the Golden-backed Tree-rat and Wyulda.

### b. North-east

**Curramore** is located about 90 km north of Brisbane, on the western escarpment of the Maleny Plateau in south east Queensland. Despite its relatively small size, Curramore is home to a remarkably high diversity of wildlife, thanks to its wide range of vegetation types and its connectivity to more extensive forest on adjacent land including the Maleny National Park. Curramore Sanctuary protects a total of 279 species of native vertebrates, including several hundred species of birds and reptiles that dominate the forests during the day. The canopy comes to life at night with possums and gliders, and threatened species like the Koala, Marbled Frogmouth, Grey-headed Flying Fox, and the rare Golden Tipped Bat.

**Bowra** Wildlife Sanctuary lies northwest of Cunnamulla, in central southern Queensland. The property protects 14,113 ha of diverse habitat from mulga woodlands to alluvial sands and claypans. Bowra supports over 300 species of native vertebrate animals including a number of species near their eastern or western range limits, such as the Striated Grasswren, Blue-Winged Parrot, Desert Spadefoot Toad, Striped Skink, Pebble Dragon and Little Red Flying-Fox. The diversity of species is a consequence of the sanctuary's location, straddling a suite of habitats on both the Warrego River plains and the plateau further west.

**Brooklyn** Wildlife Sanctuary lies in far north Queensland, spanning a range of habitat types and topography: from a wall of mountains reaching the edge of the Daintree rainforests in the east, to the open floodplains of the Mitchell River in the west. Brooklyn Wildlife Sanctuary contains an extraordinary concentration of wildlife, and provides a refuge for more than 30 species that are threatened with extinction. Over 40% of Australia's bird species and 30% of Australia's mammals can be found on the property, giving it immense conservation value. The 86 mammal species on the property include many that are restricted to particular rainforest types

in the region like the Lumholtz Tree Kangaroo, Musky Rat Kangaroo and three species of mountain ringtail possum.

**Piccaninny Plains**, situated in the centre of Cape York Peninsula, extends from the foothills of the McIlwraith Range to the western plains of the Gulf of Carpentaria. Fifty-two kilometres of the Archer River and its towering gallery forest form the southern boundary, from here, a network of wetlands, woodlands, tall grasslands and deciduous vine forests extend 60 kilometres to the north, meeting the rainforests of the Wenlock River and the north eastern boundary. The gallery and vine forests are home to some of the sanctuary's more striking wildlife, including the Spotted Cuscus, Striped Possum, Palm Cockatoo, Magnificent Riflebird, Eclectus Parrot. Feral horses, cattle and pigs are the most problematic feral herbivores on the property, and are being removed by trapping, mustering and shooting, as well as strategic fencing to limit reinvasion and protect wetlands. In the last 5 years, field staff have removed over 6,000 pigs, 5,500 cattle, and over 900 horses.

**Pungalina** is perched on the edge of a rugged sandstone plateau, overlooking the vast coastal plains of **Seven Emu**. The two properties are connected by the Calvert River and together cover an area of 306,911 ha. The vast sanctuary supports a rich montage of habitats including coastal rainforest, mangroves, riparian forest, eucalypt woodlands, perched wetlands and bubbling thermal springs. This diversity makes it a refuge for many species that are in sharp decline elsewhere in northern Australia. Pungalina-Seven Emu is an important refuge for the declining wildlife of the Gulf of Carpentaria, protecting nearly 50 mammal species, over 200 bird species and over 100 reptiles.

**Bullo River Station** AWC has formed an innovative partnership with the owners of Bullo River Station to deliver land management and science on one of Australia's most iconic pastoral leases. AWC and Bullo River are working in partnership to demonstrate how conservation and pastoral activities can co-exist. This partnership protects a suite of threatened species consistent with its use as a commercial cattle property and eco-tourism operation.

**Wongalara** Covering over 190,000 hectares on the southern edge of Arnhem Land, Wongalara makes a vital contribution to conservation within the poorly reserved Gulf Fall and Uplands Bioregion. It contains a range of topography and a variety of landscapes supporting distinct assemblages of plants and animals. The various ecosystems on Wongalara form an intricate and complex pattern, with fine-scale variation. AWC's management at Wongalara is aimed at halting and reversing the decline in wildlife that is sweeping across northern Australia. One of the measures undertaken was the establishment of the largest feral herbivore-free area on mainland Australia (1,000 square kilometres).

### c. South-west (Karakamia, Paruna, Faure Island)

**Karakamia** protects 275 ha of Jarrah forest in the south-west of Western Australia. Karakamia was the first property acquired by AWC. A 9 km feral proof fence around the entire property has provided sanctuary for the Brush-tailed Bettong (Woylie), Southern Brown Bandicoot (Quenda) and Tamar Wallaby.

**Paruna** is located in the Avon Valley east of Perth. The sanctuary was established by AWC in 1998 to create a 2,000 ha wildlife corridor between two National Parks: Walyunga National Park to the southwest and Avon Valley National Park to the northeast. The Paruna sanctuary vegetation is dominated by Wandoo and Powderbark Wandoo woodlands. The sanctuary supports populations of Black-flanked Rock-wallaby, Tamar Wallaby, Southern Brown Bandicoot (Quenda) and Western Quoll (Chuditch).

**Faure Island** is AWC's only offshore sanctuary, located within the Shark Bay World Heritage Area. At almost 6,000 ha, Faure Island provides a feral predator-free refuge for four species of nationally threatened mammals released onto Faure Island: Burrowing Bettong (Boodie), Shark Bay Mouse, Banded Hare-wallaby and Shark Bay Bandicoot.

The internship includes the possibility for visits to **Mt Gibson** which covers 130,500 ha of largely pristine semi-arid ecosystems in the mid-west of Western Australia. Mt Gibson is the site of one of Australia's most ambitious mammal reintroduction projects to date. AWC has established a 7,800 ha feral-free area at Mt Gibson, into which at least 10 regionally extinct mammals will be reintroduced. Greater Stick-nest Rats, Numbats, Bilbies, Banded Hare-wallabies, Shark Bay Bandicoots, Shark Bay Mice, Red-tailed Phascogales, Brush-tailed Bettongs (Woylies) and Brushtail Possums have already been introduced into the feral predator-free enclosure on the sanctuary.

#### d. South-west (Mt Gibson)

**Mt Gibson** covers 130,500 ha of largely pristine semi-arid ecosystems in the mid-west of Western Australia. Mt Gibson is the site of one of Australia's most ambitious mammal reintroduction projects to date. AWC has established a 7,800 ha feral-free area at Mt Gibson into which at least 10 regionally extinct mammals will be reintroduced. Greater Stick-nest Rats, Numbats, Bilbies, Banded Hare-wallabies, Shark Bay Bandicoots, Shark Bay Mice, Red-tailed Phascogales, Brush-tailed Bettongs (Woylies) and Brushtail Possums have already been introduced into the feral predator-free enclosure on the sanctuary.

The internship includes likely visits to one or more of the other south-west sanctuaries, to assist in the region's wider science programs broaden the experience.

#### e. Central and South (Yookamurra, Kalamurina, Buckaringa, Dakalanta and Kangaroo Island)

**Yookamurra** was established more than 30 years ago and protects over 5,000 ha of mallee, particularly rare old-growth mallee in south-eastern South Australia. Four regionally extinct mammal species including the Burrowing Bettong, Brush-tailed Bettong, Numbat, and Greater Bilby have been reintroduced into the 1,100 ha feral free area. Yookamurra is also an important stronghold for other wildlife such as the Southern Hairy-nosed Wombat, Common Brushtail Possum, Malleefowl, Carpet Python, and a range of woodland birds.

**Kalamurina** is a vast desert wilderness, covering a remarkable 679,000 ha in northern South Australia on the northern shores of Kati Thanda-Lake Eyre. Kalamurina protects the lower sections of three major drainage lines that flow into this expansive inland lake as well as the extensive dune and swale systems and other unique landforms of the three deserts that are found there. Kalamurina protects a range of threatened ecosystems and fauna, such as the Dusky Hopping Mouse, Crest-tailed Mulgara, Australian Bustard, Grey Falcon, and Woma Python.

**Buckaringa** in the central Flinders Ranges is a small but critical piece of the rugged ranges bisected by spectacular Redgum-lined gorges, typical of this landscape. Buckaringa protects an important colony of the threatened Yellow-footed Rock Wallaby. AWC implements a feral animal control program to help safeguard the rock wallabies and other species. The success of this management is measured by AWC's science program.

**Dakalanta** on the Eyre Peninsula of South Australia protects over 13,600 ha of mallee, Callitris woodland, and Drooping She-oak grassy woodland. Dakalanta is an important stronghold for the Southern Hairy-nosed

Wombat and a range of woodland bird and reptile species and was the site of a large revegetation program focussed on restoring the threatened Drooping She-oak woodland.

**Kangaroo Island** protects critical habitat that supports a suite of endemic and threatened species such as the Kangaroo Island Dunnart, Glossy Black-Cockatoo, and Southern Brown Bandicoot. In response to the 2019/20 bushfires AWC has partnered with Kangaroo Island Land For Wildlife and local landholders to protect 369 ha of critical habitat for threatened species (the Western River Refuge) and work in partnership to deliver effective conservation.

#### f. Central and South (Newhaven)

**Newhaven** lies on the southern edge of the Tanami Desert in the Northern Territory and protects over 260,000 ha of arid zone ecosystems. It is a renowned hotspot for central Australian wildlife and threatened species such as the Brush-tailed Mulgara, Black-footed Rock-wallaby, and Great Desert Skink. Newhaven is also the site of one of Australia's most ambitious mammal reintroduction projects. AWC has established a 9,450 ha feral-free area into which at least 10 regionally extinct mammals will be reintroduced. Mala, Red-tailed Phascogales, Brush-tailed Bettongs, Burrowing Bettongs, Greater Bilbies and Central Rock-rats have already been reintroduced, with several other mammal species planned for reintroduction over the coming years. In 2023, it is possible that Newhaven interns may also visit one or more of the **central and south sanctuaries**, to assist in the science program and broaden their internship experience.

#### g. South-east

**Pilliga** is one of two projects run by AWC in partnership with the NSW Government, in the dry forest/woodlands of north-central NSW. A key pillar of the Pilliga project is an ambitious program to reintroduce six regionally-extinct mammals to the forest. A 5,800 ha feral predator-free fenced area has been established within the 36,000 ha reserve, with two species already reintroduced (Greater Bilby and Bridled Nailtail Wallaby). A further three species will be reintroduced in 2022-23 (Brush-tailed Bettong, Shark Bay Bandicoot, Plains Mouse). Work in the Pilliga includes a comprehensive biodiversity monitoring program, as well as detailed monitoring (including radio-tracking) of reintroduced species.

**Mallee Cliffs** is one of two projects run by AWC in partnership with the NSW Government, in the semi-arid woodlands of far south-western NSW. The project is part of an exciting initiative to reintroduce 10 regionally-extinct mammals. In 2019, AWC completed construction of a 9,570-ha feral predator-free fenced area within the 58,000 ha reserve. To date, 6 species have been reintroduced into the Park (Numbat, Greater Bilby, Brush-tailed Bettong, Red-tailed Phascogale, Mitchell's Hopping Mouse and Greater Stick-nest Rat) with a further 3 species scheduled for release in 2022-23 (Bridled Nailtail Wallaby, Shark Bay Bandicoot, Burrowing Bettong). A comprehensive biodiversity monitoring program is delivered across Mallee Cliffs National Park as well as detailed monitoring (including radio-tracking) of the newly reintroduced species.

**Scotia** protects 65,000 ha of mallee in western NSW and is the location of one of the longest running reintroduction programs in Australia. The sanctuary supports established populations of four reintroduced mammals within an 8,000-ha fenced area: Numbat, Greater Bilby, Burrowing Bettong, and Bridled Nailtail Wallaby. At least two additional species will be reintroduced in 2022-23. The sanctuary also protects extensive areas of high-conservation value Mallee woodland home to a range of extant and nationally significant threatened species such as the Malleefowl, Western Pygmy Possum and Southern Ningui. AWC's science

program monitors the status of these species, plus the impacts of its land management programs on the biodiversity of the sanctuary.

#### h. South-east (North Head)

**North Head** is a small sanctuary surrounded by the Sydney Harbour National Park. AWC is contracted by the Sydney Harbour Federation Trust to conduct ecological research, biodiversity monitoring, species reintroductions and wildlife management within the reserve. Three previously extinct mammals on the Headland have recently been reintroduced (Bush Rat, Eastern Pygmy Possum and Brown Antechinus) and radio-tracking and trapping are used to measure the success of these reintroductions. Other research programs are focussed mainly on conservation of the endangered Long-nosed Bandicoot population and the Eastern Suburbs Banksia Scrub ecological community.

In 2023, it is likely that North Head interns will also visit one or more of the **South-east sanctuaries** to assist in the science programs and broaden their internship experience.

#### i. National Science

The **National Science** team provides strategic direction and support to AWC's science program, as well as AWC's development, communications, legal, executive and board. The National Science team is responsible for developing the framework around translocations, genetic and conservation management of populations, climate change, fire and weed strategies, and ecohealth reporting. Part of the team travel between sanctuaries to conduct botanical and vegetation surveys and research. The team provides GIS support across the organisation and is implementing a Fauna Observation Database (FOD), centralised storage of ecological data from all the sanctuaries and partnership sites. In 2023, it is possible that the National Science Team intern may visit one or more of AWC's sanctuaries, to assist in the science program and broaden their internship experience.

## 9. Program overview

### a. North-west

The table below summarises the tasks that the North-west Intern will undertake at Mornington, Marion Downs, Tableland, Charnley River-Artesian Range and Yampi Sound Training Area.

**Dates of internship: April – September**

Objectives	Tasks	Learning outcomes	Evaluation of outcomes
<p>Assist with biodiversity surveys and fauna monitoring programs to monitor the ecological health of the sanctuaries and responses to land management</p>	<ul style="list-style-type: none"> <li>• Conduct systematic live trapping, scat plot, observational, vegetation, audio recording, camera trapping, track and spotlighting surveys</li> <li>• Fauna identification</li> <li>• Fauna handling (including microchipping, collecting morphometric data and genetic samples)</li> <li>• Image processing from camera traps</li> <li>• Spotlighting</li> <li>• Targeted searches</li> <li>• Record data from field work</li> <li>• Enter data into established databases</li> </ul>	<ul style="list-style-type: none"> <li>• Increased knowledge of Australia’s fauna species and their conservation status</li> <li>• Experience with different survey techniques</li> <li>• Experience with identifying and handling a wide range of fauna including birds, small-medium mammals, reptiles and frogs</li> <li>• Quarantine and husbandry procedures</li> <li>• Value of accurate records</li> <li>• Team work</li> <li>• Use of GPS</li> </ul>	<ul style="list-style-type: none"> <li>• An understanding of conservation issues in northern Australia</li> <li>• Ability to use different capture methods and handle animals proficiently</li> <li>• Knowledge of vegetation sampling methods</li> <li>• Accurate record keeping and data entry</li> <li>• Ability to work independently and as part of team</li> <li>• Understanding of quarantine issues</li> <li>• Ability to work independently and as part of team</li> </ul>
<p>Threatened species monitoring program</p> <ul style="list-style-type: none"> <li>• Assess distribution and abundance of threatened species (i.e. Golden Bandicoot, Northern Quoll)</li> </ul>	<ul style="list-style-type: none"> <li>• Targeted mammal surveys</li> <li>• Mammal handling (measuring, genetic sampling)</li> <li>• Camera trap surveys – both vehicle and helicopter based</li> <li>• Remote camping and logistics</li> <li>• Record keeping</li> </ul>	<ul style="list-style-type: none"> <li>• Remote area trapping techniques</li> <li>• Remote camping and logistics</li> <li>• Medium-sized mammal handling</li> <li>• Navigation proficiency</li> <li>• Experience with diversity of partnership management arrangements</li> </ul>	<ul style="list-style-type: none"> <li>• Understanding of conservation issues in north-western Australia</li> <li>• Ability to use mammal capture methods and handle medium-sized mammals proficiently</li> <li>• Ability to work in a close-knit team environment</li> </ul>

Objectives	Tasks	Learning outcomes	Evaluation of outcomes
<p>Mornington, Marion Downs, Charnley River – Artesian Range, Yampi (intermittently between other activities)</p>			<ul style="list-style-type: none"> <li>• Ability to adhere to different working requirements of partnership properties</li> </ul>
<ul style="list-style-type: none"> <li>• To assist with monitoring of feral animals and predator research to estimate population density and distribution of Dingoes and cats</li> <li>• to estimate population size of Northern Quolls</li> </ul> <p>Mornington, Marion Downs, Charnley River – Artesian Range, Yampi</p>	<ul style="list-style-type: none"> <li>• Image processing</li> <li>• Camera trapping</li> </ul>	<ul style="list-style-type: none"> <li>• Careful record keeping</li> <li>• Accurate navigation and use of GPS</li> </ul>	<ul style="list-style-type: none"> <li>• An understanding of conservation issues in Australia</li> <li>• Ability to carry out fieldwork promptly and to schedule</li> </ul>
<p>Assist with threatened bird surveys to measure abundance of seed-eating birds (finches, pigeons, quail, parrots)</p>	<ul style="list-style-type: none"> <li>• Participate in granivore counts at waterholes</li> <li>• Assist in collection and organisation of data from volunteers</li> </ul>	<ul style="list-style-type: none"> <li>• Experience with bird survey techniques</li> <li>• Data organisation and management</li> <li>• Volunteer management</li> </ul>	<ul style="list-style-type: none"> <li>• Ability to use different survey methods</li> <li>• Accurate record keeping and data entry</li> <li>• Ability to work as part of a team</li> <li>• Ability to direct and assist volunteers</li> </ul>
<p>Participate in science and regional staff meetings</p>	<ul style="list-style-type: none"> <li>• Discuss issues relating to research and management</li> </ul>	<ul style="list-style-type: none"> <li>• Public speaking</li> <li>• Negotiation</li> </ul>	<ul style="list-style-type: none"> <li>• Ability to interact in a positive way with a range of staff</li> </ul>

Objectives	Tasks	Learning outcomes	Evaluation of outcomes
<p>Assist with the reintroduction program at Newhaven including monitoring of reintroduced species</p>	<ul style="list-style-type: none"> <li>• Conduct systematic live trapping, radio tracking and camera trapping to monitor populations of reintroduced species</li> <li>• Capture of animals from source locations and release at Newhaven</li> <li>• Monitoring of populations at source locations</li> <li>• Fauna handling including collection of morphometric data, microchipping and genetic sampling</li> <li>• Transport of animals</li> <li>• Image processing from camera trapping</li> <li>• Record data from field work</li> <li>• Enter data into established databases</li> </ul>	<ul style="list-style-type: none"> <li>• Increased knowledge of Australia's fauna species and their conservation status</li> <li>• Working with external organisations and government departments</li> <li>• Capture and handling of animals</li> <li>• Animal welfare and husbandry procedures</li> <li>• Team work</li> <li>• Careful record keeping</li> <li>• Accurate navigation and use of GPS</li> <li>• Experience with different trapping and survey techniques</li> </ul>	<ul style="list-style-type: none"> <li>• An understanding of conservation issues in Australia</li> <li>• Ability to use different capture methods and handle animals proficiently</li> <li>• Understanding of animal welfare issues</li> <li>• Ability to work as part of a team</li> </ul>

## b. North-east

The table below summarises the tasks that the North-east Intern will undertake at several of the following sanctuaries; Brooklyn, Piccaninny Plains, Mt Zero-Taravale, Bowra and Curramore [QLD], Pungalina Seven-Emu, Bullo River Station and Wongalara [NT].

### Dates of internship: March – July & July –December

Objectives	Tasks	Learning outcomes	Evaluation of outcomes
Assist with biodiversity surveys and fauna monitoring programs to monitor the ecological health of the sanctuaries and responses to land management	<ul style="list-style-type: none"> <li>• Conduct systematic live trapping, scat plot, observational, vegetation, audio recording, camera trapping, track and spotlighting surveys</li> <li>• Fauna identification</li> <li>• Fauna handling (including microchipping, collecting morphometric data and genetic samples)</li> <li>• Image processing from camera traps</li> <li>• Spotlighting</li> <li>• Targeted searches</li> <li>• Record data from field work</li> <li>• Enter data into established databases</li> </ul>	<ul style="list-style-type: none"> <li>• Increased knowledge of Australia’s fauna species and their conservation status</li> <li>• Experience with different survey techniques</li> <li>• Experience with identifying and handling a wide range of fauna including birds, small-medium mammals, reptiles and frogs</li> <li>• Quarantine and husbandry procedures</li> <li>• Value of accurate records</li> <li>• Team work</li> <li>• Use of GPS</li> </ul>	<ul style="list-style-type: none"> <li>• An understanding of conservation issues in Australia</li> <li>• Ability to use different capture methods and handle animals proficiently</li> <li>• Ability to identify and handle a range of Australian fauna</li> <li>• Ability to carry out fieldwork promptly and to schedule</li> <li>• Careful record keeping</li> <li>• Understanding of quarantine issues</li> <li>• Ability to work independently and as part of team</li> </ul>
To assist with monitoring of feral animals and predator research	<ul style="list-style-type: none"> <li>• Image processing</li> <li>• Camera trapping</li> </ul>	<ul style="list-style-type: none"> <li>• Careful record keeping</li> <li>• Accurate navigation and use of GPS</li> </ul>	<ul style="list-style-type: none"> <li>• An understanding of conservation issues in Australia</li> <li>• Ability to carry out fieldwork promptly and to schedule</li> </ul>
To assist with supporter events at Mt Zero-Taravale and Bullo River			
Participate in staff meetings	<ul style="list-style-type: none"> <li>• Discuss issues relating to research and management</li> </ul>	<ul style="list-style-type: none"> <li>• Public speaking</li> <li>• Negotiation</li> </ul>	<ul style="list-style-type: none"> <li>• Ability to interact in a positive way with a range of staff</li> </ul>

### c. South-west (Karakamia, Faure Island, Paruna)

The table below summarises the tasks that the South-west Intern will undertake at Karakamia, Paruna, Faure Island and Mt Gibson.

**Dates of internship: February – July & July – December**

Objectives	Tasks	Learning outcomes	Evaluation of outcomes
Assist with the reintroduced fauna monitoring program at Faure Island, Karakamia and Paruna Wildlife Sanctuaries	<ul style="list-style-type: none"> <li>• Conduct systematic live trapping, scat plot, camera trapping and spotlighting surveys to monitor the health of reintroduced species</li> <li>• Fauna handling (including microchipping, collecting morphometric data and tissue sampling)</li> <li>• Learn and adhere to quarantine protocols</li> <li>• Image processing from camera traps</li> <li>• Scat and track identification</li> <li>• Spotlighting</li> <li>• Transportation of animals</li> <li>• Record data from field work</li> <li>• Enter data into established databases</li> </ul>	<ul style="list-style-type: none"> <li>• Increased knowledge of Australia’s fauna species and their conservation status</li> <li>• Capture and handling techniques</li> <li>• Translocation methods</li> <li>• Quarantine and husbandry procedures</li> <li>• Accurate navigation and use of GPS</li> <li>• Team work</li> <li>• Value of accurate records</li> <li>• Knowledge of alternative approaches to monitoring</li> </ul>	<ul style="list-style-type: none"> <li>• An understanding of conservation issues in Australia</li> <li>• Ability to use different capture methods and handle animals proficiently</li> <li>• Understanding of quarantine issues</li> <li>• Ability to work independently and as part of team</li> </ul>
Assist with biodiversity surveys and extant fauna monitoring programs at Karakamia, Paruna and Faure Island to monitor the ecological health of the sanctuaries and responses to land management	<ul style="list-style-type: none"> <li>• Conduct systematic live trapping, scat plot, observational, vegetation, audio recording, camera trapping, track and spotlighting surveys</li> <li>• Fauna identification</li> <li>• Fauna handling (including microchipping, collecting morphometric data and genetic sampling)</li> </ul>	<ul style="list-style-type: none"> <li>• Increased knowledge of Australia’s fauna species and their conservation status</li> <li>• Experience with different survey techniques</li> <li>• Experience with identifying and handling a wide range of fauna including birds, small-medium mammals, reptiles and frogs</li> <li>• Quarantine and husbandry procedures</li> </ul>	<ul style="list-style-type: none"> <li>• An understanding of conservation issues in Australia</li> <li>• Ability to use different capture methods and handle animals proficiently</li> <li>• Ability to identify and handle a range of Australian fauna</li> <li>• Ability to carry out fieldwork promptly and to schedule</li> <li>• Careful record keeping</li> </ul>

	<ul style="list-style-type: none"> <li>• Image processing from camera traps</li> <li>• Spotlighting</li> <li>• Targeted searches</li> <li>• Record data from field work</li> <li>• Enter data into established databases</li> </ul>	<ul style="list-style-type: none"> <li>• Value of accurate records</li> <li>• Team work</li> <li>• Use of GPS</li> </ul>	<ul style="list-style-type: none"> <li>• Understanding of quarantine issues</li> <li>• Ability to work independently and as part of team</li> </ul>
If required, assist with the Mammal Restoration Project at Mt Gibson including monitoring of reintroduced species and conducting wildlife translocations	<ul style="list-style-type: none"> <li>• Conduct systematic live trapping, scat plot, radio tracking and camera trapping to monitor populations of reintroduced species</li> <li>• Capture of animals from source locations and release at Mt Gibson</li> <li>• Monitoring of populations at source locations</li> <li>• Fauna handling including collection of morphometric data, microchipping and genetic sampling</li> <li>• Transport of animals</li> <li>• Image processing from camera trapping</li> <li>• Record data from field work</li> <li>• Enter data into established databases</li> </ul>	<ul style="list-style-type: none"> <li>• Increased knowledge of Australia's fauna species and their conservation status</li> <li>• Working with external organisations and government departments</li> <li>• Capture and handling of animals</li> <li>• Animal welfare and husbandry procedures</li> <li>• Team work</li> <li>• Careful record keeping</li> <li>• Accurate navigation and use of GPS</li> <li>• Experience with different trapping and survey techniques</li> </ul>	<ul style="list-style-type: none"> <li>• An understanding of conservation issues in Australia</li> <li>• Ability to use different capture methods and handle animals proficiently</li> <li>• Understanding of animal welfare issues</li> <li>• Ability to work as part of a team</li> </ul>
Participate in staff meetings	<ul style="list-style-type: none"> <li>• Discuss issues relating to research and management</li> </ul>	<ul style="list-style-type: none"> <li>• Public speaking</li> <li>• Negotiation</li> </ul>	<ul style="list-style-type: none"> <li>• Ability to interact in a positive way with a range of staff</li> </ul>

#### d. South-west (Mt Gibson)

The table below summarises the tasks that the South-west Mt Gibson Intern will undertake at Mt Gibson.

**Dates of internship: February – July & July – December**

Objectives	Tasks	Learning outcomes	Evaluation of outcomes
Assist with biodiversity surveys and fauna monitoring programs at Mt Gibson to monitor the ecological health of the sanctuary and responses to land management	<ul style="list-style-type: none"> <li>• Conduct systematic live trapping, scat plot, observational, vegetation, audio recording and camera trapping surveys at a series of permanent monitoring sites</li> <li>• Fauna trapping, identification and handling (including collecting morphometric data, microchipping and genetic sampling)</li> <li>• Image processing from camera traps</li> <li>• Record data from field work</li> <li>• Enter data into established databases</li> </ul>	<ul style="list-style-type: none"> <li>• Increased knowledge of Australia’s fauna species and their conservation status</li> <li>• Experience with different trapping and survey techniques</li> <li>• Experience with identifying handling a wide range of fauna including birds, mammals, reptiles and frogs</li> <li>• Animal welfare and husbandry procedures</li> <li>• Careful record keeping</li> <li>• Accurate navigation and use of GPS</li> </ul>	<ul style="list-style-type: none"> <li>• An understanding of conservation issues in Australia</li> <li>• Ability to use different capture methods and handle animals proficiently</li> <li>• Ability to identify and handle a range of Australian fauna</li> <li>• Ability to carry out fieldwork promptly and to schedule</li> <li>• Careful record keeping</li> <li>• Understanding of animal welfare issues</li> </ul>
Assist with the Mammal Restoration Project at Mt Gibson, including monitoring reintroduced species and conducting wildlife translocations	<ul style="list-style-type: none"> <li>• Conduct systematic live trapping, scat plot, radio tracking and camera trapping to monitor populations of reintroduced species</li> <li>• Capture of animals from source locations and release at Mt Gibson</li> <li>• Monitoring of populations at source locations</li> <li>• Fauna handling including collection of morphometric data, microchipping and genetic sampling</li> </ul>	<ul style="list-style-type: none"> <li>• Increased knowledge of Australia’s fauna species and their conservation status</li> <li>• Working with external organisations and government departments</li> <li>• Capture and handling of animals</li> <li>• Animal welfare and husbandry procedures</li> <li>• Team work</li> <li>• Careful record keeping</li> <li>• Accurate navigation and use of GPS</li> </ul>	<ul style="list-style-type: none"> <li>• An understanding of conservation issues in Australia</li> <li>• Ability to use different capture methods and handle animals proficiently</li> <li>• Understanding of translocation methods</li> <li>• Understanding of animal welfare issues</li> </ul>

	<ul style="list-style-type: none"> <li>• Transport of animals</li> <li>• Image processing from camera trapping</li> <li>• Record data from field work</li> <li>• Enter data into established databases</li> </ul>	<ul style="list-style-type: none"> <li>• Experience with different trapping and survey techniques</li> </ul>	
Assist with the Introduced Predator Ecology Project at Mt Gibson	<ul style="list-style-type: none"> <li>• Camera trapping</li> <li>• Image processing</li> </ul>	<ul style="list-style-type: none"> <li>• Careful record keeping</li> <li>• Accurate navigation and use of GPS</li> </ul>	<ul style="list-style-type: none"> <li>• An understanding of conservation issues in Australia</li> <li>• Ability to carry out fieldwork promptly and to schedule</li> </ul>
Participate in staff meetings	<ul style="list-style-type: none"> <li>• Discuss issues relating to research and management</li> </ul>	<ul style="list-style-type: none"> <li>• Public speaking</li> <li>• Negotiation</li> </ul>	<ul style="list-style-type: none"> <li>• Ability to interact in a positive way with a range of staff</li> </ul>

## e. Central and South (Yookamurra, Buckaringa, Kalamurina, Dakalanta, Kangaroo Island)

The table below summarises the program for the Central and South Intern: Yookamurra, Buckaringa, Kalamurina, Dakalanta and Kangaroo Island (Western River Refuge).

**Dates of internship: February – June & August – December**

Objectives	Tasks	Learning outcomes	Evaluation of outcomes
Assist with the fauna reintroduction and monitoring program at Yookamurra Wildlife Sanctuary	<ul style="list-style-type: none"> <li>Conduct systematic live trapping, spotlighting surveys, diurnal transect surveys at a series of permanent monitoring sites to monitor the population and health of reintroduced species</li> <li>Fauna handling (including micro-chipping, collecting morphometric data and genetic samples)</li> <li>If required, assist vets with treatment of animals</li> <li>Learn and adhere to quarantine protocols</li> <li>Record data from field work</li> <li>Enter data into established databases</li> <li>Assist with report writing</li> </ul>	<ul style="list-style-type: none"> <li>Increased knowledge of Australia's fauna species and their conservation status</li> <li>Capture and handling techniques</li> <li>Translocation methods</li> <li>Quarantine and husbandry procedures</li> <li>Accurate navigation and use of GPS</li> <li>Teamwork</li> <li>Value of accurate records</li> <li>Knowledge of alternative approaches to monitoring</li> <li>Writing for scientific purposes</li> </ul>	<ul style="list-style-type: none"> <li>An understanding of conservation issues in Australia</li> <li>Ability to use different capture methods and handle animals proficiently</li> <li>Understanding of quarantine issues</li> <li>Ability to work independently and as part of team</li> <li>Ability to clearly communicate survey results through written reports</li> </ul>
Assist with biodiversity surveys and flora/fauna monitoring programs at Yookamurra, Buckaringa, Kalamurina, Dakalanta and Kangaroo Island (Western River Refuge) to monitor the ecological health of the sanctuaries and responses to and management	<ul style="list-style-type: none"> <li>Conduct systematic live trapping, camera trapping, spotlight surveys, diurnal transect surveys, and observational surveys at a series of permanent monitoring sites</li> <li>Image processing from camera traps</li> <li>Fauna and flora identification</li> </ul>	<ul style="list-style-type: none"> <li>Increased knowledge of Australia's fauna and flora</li> <li>Experience with different trapping and survey techniques</li> <li>Experience with identifying and handling a wide range of fauna including small-medium mammals, birds and reptiles</li> <li>Quarantine and husbandry procedures</li> </ul>	<ul style="list-style-type: none"> <li>Ability to identify and demonstrate knowledge of Australia's flora and fauna</li> <li>Ability to carry out fieldwork efficiently and to manage time</li> <li>Ability to handle and collect data from a wide range of fauna</li> <li>Accurate record keeping</li> </ul>

Objectives	Tasks	Learning outcomes	Evaluation of outcomes
	<ul style="list-style-type: none"> <li>• Fauna trapping (installing monitoring sites, setting traps, checking traps)</li> <li>• Fauna handling and data collection and management</li> <li>• Vegetation surveys</li> <li>• Record data from field work</li> <li>• Enter data into established databases</li> <li>• Assist with report writing</li> </ul>	<ul style="list-style-type: none"> <li>• Use of GPS</li> <li>• Value of accurate record keeping</li> <li>• Accurate navigation</li> <li>• Writing for scientific purposes</li> </ul>	<ul style="list-style-type: none"> <li>• Ability to work independently and as part of team</li> <li>• Ability to clearly communicate survey results through written reports</li> </ul>
<p>If required, assist with the reintroduction program at Newhaven including monitoring of reintroduced species and conducting wildlife translocations</p>	<ul style="list-style-type: none"> <li>• Conduct systematic live trapping, radiotracking and camera trapping to monitor populations of reintroduced species</li> <li>• Capture of animals from source locations and release at Newhaven</li> <li>• Monitoring of populations at source locations</li> <li>• Fauna handling including collection of morphometric data, microchipping and genetic sampling</li> <li>• Transport of animals</li> <li>• Image processing from camera trapping</li> <li>• Record data from field work</li> <li>• Enter data into established databases</li> </ul>	<ul style="list-style-type: none"> <li>• Increased knowledge of Australia's fauna species and their conservation status</li> <li>• Working with external organisations and government departments</li> <li>• Capture and handling of animals</li> <li>• Animal welfare and husbandry procedures</li> <li>• Team work</li> <li>• Careful record keeping</li> <li>• Accurate navigation and use of GPS</li> <li>• Experience with different trapping and survey techniques</li> </ul>	<ul style="list-style-type: none"> <li>• An understanding of conservation issues in Australia</li> <li>• Ability to use different capture methods and handle animals proficiently</li> <li>• Understanding of animal welfare issues</li> <li>• Ability to work as part of a team</li> </ul>
<p>Promote AWCs mission through engagement opportunities</p>	<ul style="list-style-type: none"> <li>• Help facilitate visitor experiences while at AWC sanctuaries</li> </ul>	<ul style="list-style-type: none"> <li>• Experience with public speaking</li> <li>• Experience with adapting information for the audience</li> <li>• Experience with science communications</li> </ul>	<ul style="list-style-type: none"> <li>• Ability to interact in a positive way and effectively communicate AWCs mission</li> </ul>

Objectives	Tasks	Learning outcomes	Evaluation of outcomes
	<ul style="list-style-type: none"> <li>• Convey accurate information through guided walks and presentations</li> </ul>		
Participate in staff meetings	<ul style="list-style-type: none"> <li>• Discuss issues relating to safety, research and management</li> </ul>	<ul style="list-style-type: none"> <li>• Public speaking</li> <li>• Negotiation</li> </ul>	<ul style="list-style-type: none"> <li>• Ability to interact in a positive way with a range of staff</li> </ul>

## f. Central and South (Newhaven)

The table below summarises the program for the Central and South Intern: Newhaven.

**Dates of internship: February – July & July – December**

Objectives	Tasks	Learning outcomes	Evaluation of outcomes
Assist with the reintroduction program at Newhaven including monitoring of reintroduced species and conducting wildlife translocations	<ul style="list-style-type: none"> <li>• Conduct systematic live trapping, radio tracking and camera trapping to monitor populations of reintroduced species</li> <li>• Capture of animals from source locations and release at Newhaven</li> <li>• Monitoring of populations at source locations</li> <li>• Fauna handling including collection of morphometric data, microchipping and genetic sampling</li> <li>• Transport of animals</li> <li>• Image processing from camera trapping</li> <li>• Record data from field work</li> <li>• Enter data into established databases</li> </ul>	<ul style="list-style-type: none"> <li>• Increased knowledge of Australia's fauna species and their conservation status</li> <li>• Working with external organisations and government departments</li> <li>• Capture and handling of animals</li> <li>• Animal welfare and husbandry procedures</li> <li>• Team work</li> <li>• Careful record keeping</li> <li>• Accurate navigation and use of GPS</li> <li>• Experience with different trapping and survey techniques</li> </ul>	<ul style="list-style-type: none"> <li>• An understanding of conservation issues in Australia</li> <li>• Ability to use different capture methods and handle animals proficiently</li> <li>• Understanding of animal welfare issues</li> <li>• Ability to work as part of a team</li> </ul>
Assist with biodiversity surveys and fauna monitoring programs at Newhaven to monitor the ecological health of the sanctuary and responses to and management	<ul style="list-style-type: none"> <li>• Conduct systematic live trapping, camera trapping, next box surveys</li> <li>• Image processing from camera traps</li> <li>• Fauna and flora identification</li> <li>• Fauna trapping (installing monitoring sites, setting traps, checking traps)</li> </ul>	<ul style="list-style-type: none"> <li>• Increased knowledge of Australia's fauna and flora</li> <li>• Experience with different trapping and survey techniques</li> <li>• Experience with identifying and handling a wide range of fauna including small-medium mammals and reptiles</li> <li>• Quarantine and husbandry procedures</li> </ul>	<ul style="list-style-type: none"> <li>• Ability to identify and demonstrate knowledge of Australia's flora &amp; fauna</li> <li>• Ability to carry out fieldwork efficiently and to manage time</li> <li>• Ability to handle and collect data from a wide range of fauna</li> <li>• Accurate record keeping</li> </ul>

	<ul style="list-style-type: none"> <li>• Fauna handling and data collection and management</li> <li>• Vegetation surveys</li> <li>• Record data from field work</li> <li>• Enter data into established databases</li> </ul>	<ul style="list-style-type: none"> <li>• Use of GPS</li> <li>• Value of accurate record keeping</li> <li>• Accurate navigation</li> </ul>	<ul style="list-style-type: none"> <li>• Ability to work independently and as part of team</li> </ul>
Promote AWCs mission through engagement opportunities	<ul style="list-style-type: none"> <li>• Help facilitate visitor experiences while at AWC sanctuaries</li> <li>• Convey accurate information through guided walks and presentations</li> </ul>	<ul style="list-style-type: none"> <li>• Experience with public speaking</li> <li>• Experience with adapting information for the audience</li> <li>• Experience with science communications</li> </ul>	<ul style="list-style-type: none"> <li>• Ability to interact in a positive way and effectively communicate AWCs mission</li> </ul>
Participate in staff meetings	<ul style="list-style-type: none"> <li>• Discuss issues relating to safety, research and management</li> </ul>	<ul style="list-style-type: none"> <li>• Public speaking</li> <li>• Negotiation</li> </ul>	<ul style="list-style-type: none"> <li>• Ability to interact in a positive way with a range of staff</li> </ul>

## g. South-east

The table below summarises the program for the South-east Intern: Pilliga, Mallee Cliffs and Scotia.

**Dates of internship: February – June & August – December**

Objectives	Tasks	Learning outcomes	Evaluation of outcomes
<p>To assist with the fauna reintroduction program (of endangered species) at Scotia, Pilliga and Mallee Cliffs Wildlife Sanctuaries:</p> <ul style="list-style-type: none"> <li>• Conduct systematic trapping, transect surveys, or radio-tracking of (depending on Sanctuary) Greater Bilby, Bridled Nailtail Wallaby, Brush-tailed Bettong, Burrowing Bettong and Numbat populations</li> <li>• Monitor health of reintroduced populations</li> </ul>	<ul style="list-style-type: none"> <li>• Fauna trapping</li> <li>• Radio-tracking</li> <li>• Fauna handling (including micro-chipping, taking of morphometrics, tissue and blood sampling)</li> <li>• Captive animal husbandry</li> <li>• Assist vets with treatment of animals</li> <li>• Learn and adhere to quarantine protocols</li> <li>• Record data from field work</li> </ul>	<ul style="list-style-type: none"> <li>• Increased knowledge of Australia’s fauna species and their conservation status</li> <li>• Capture and handling techniques</li> <li>• Translocation methods</li> <li>• Quarantine and husbandry procedures</li> <li>• Use of GPS</li> <li>• Team work</li> <li>• Value of accurate records</li> <li>• Knowledge of alternative approaches to monitoring</li> </ul>	<ul style="list-style-type: none"> <li>• An understanding of conservation issues in Australia</li> <li>• Ability to use different capture and research methods and handle animals proficiently</li> <li>• Understanding of quarantine issues</li> <li>• Ability to work independently and as part of team</li> </ul>
<p>To undertake biodiversity monitoring surveys at Scotia, Pilliga and Mallee Cliffs sanctuaries</p>	<ul style="list-style-type: none"> <li>• Fauna identification</li> <li>• Fauna trapping (installing monitoring sites, setting traps, checking traps)</li> <li>• camera trapping</li> <li>• nocturnal fauna surveys</li> <li>• diurnal bird surveys</li> <li>• Malleefowl mound surveys</li> <li>• Vegetation and habitat assessments</li> <li>• Fauna handling and data collection</li> <li>• Record data from field work</li> </ul>	<ul style="list-style-type: none"> <li>• Increased knowledge of Australia’s fauna and flora</li> <li>• Experience with different trapping and other survey techniques</li> <li>• Experience with handling a wide range of fauna</li> <li>• Use of GPS</li> <li>• Accurate record keeping</li> <li>• Accurate navigation</li> </ul>	<ul style="list-style-type: none"> <li>• Ability to identify and demonstrate knowledge of Australia’s fauna and flora</li> <li>• Ability to carry out fieldwork efficiently and to manage time</li> <li>• Ability to handle and collect data from a wide range of fauna</li> <li>• Accurate record keeping</li> <li>• Ability to work independently and as part of team</li> </ul>

Objectives	Tasks	Learning outcomes	Evaluation of outcomes
To assist with feral animal research	<ul style="list-style-type: none"> <li>• Carry out track surveys throughout Scotia to monitor foxes, cats.</li> <li>• Carry out monitoring of pest animal control techniques</li> <li>• Trapping, radio collaring and radio-tracking of foxes and cats at Scotia and Pilliga</li> </ul>	<ul style="list-style-type: none"> <li>• Understanding of indices as a method of monitoring wildlife</li> <li>• Knowledge of pest animal control techniques</li> <li>• Knowledge of introduced species ecology</li> </ul>	<ul style="list-style-type: none"> <li>• Ability to identify tracks of terrestrial fauna</li> <li>• Ability to derive indices of abundance</li> <li>• Ability to locate tagged animals</li> </ul>
Participate in staff meetings	<ul style="list-style-type: none"> <li>• Discuss issues relating to research and management</li> </ul>	<ul style="list-style-type: none"> <li>• Public speaking</li> <li>• Negotiation</li> </ul>	<ul style="list-style-type: none"> <li>• Ability to interact in a positive way with a range of staff</li> </ul>

## h. South-east (North Head)

The table below summarises the program for the North Head Intern.

**Dates of internship: March – July & August – December**

Objectives	Tasks	Learning outcomes	Evaluation of outcomes
Assist with fauna monitoring at North Head	<ul style="list-style-type: none"> <li>• Mammal trapping</li> <li>• Animal handling (including micro-chipping, measuring, genetic sampling)</li> <li>• Camera trapping</li> <li>• Spotlight surveys</li> <li>• Frog surveys</li> <li>• Habitat assessments</li> <li>• Record data from field work</li> <li>• Post-fire monitoring</li> </ul>	<ul style="list-style-type: none"> <li>• Increased knowledge of Australia's fauna species and their conservation status</li> <li>• Experience with different trapping techniques</li> <li>• Experience with handling a wide range of fauna</li> <li>• Use of GPS</li> <li>• Careful record keeping</li> </ul>	<ul style="list-style-type: none"> <li>• Understanding conservation issues in Australia</li> <li>• Ability to use different capture methods, identify a range of fauna species, and handle animals proficiently</li> <li>• Ability to work independently and as part of team</li> </ul>
Assist with fauna reintroduction projects at North Head	<ul style="list-style-type: none"> <li>• Fauna trapping and handling</li> <li>• Radio tracking</li> <li>• Habitat assessment</li> <li>• Assist with logistics</li> <li>• Monitor and record outcomes (as above)</li> </ul>	<ul style="list-style-type: none"> <li>• Increased knowledge of reintroduction practices</li> <li>• Capacity to work as part of a team in a complex project</li> </ul>	<ul style="list-style-type: none"> <li>• Understanding of contemporary reintroduction practices</li> <li>• Ability to work independently and as part of a team</li> </ul>
Assist with monitoring restoration of Eastern Suburbs Banksia Scrub at North Head	<ul style="list-style-type: none"> <li>• Vegetation surveys</li> </ul>	<ul style="list-style-type: none"> <li>• Increased knowledge of Australia's flora and its management</li> <li>• Vegetation survey techniques</li> </ul>	<ul style="list-style-type: none"> <li>• Understanding of vegetation conservation issues</li> <li>• Ability to use vegetation survey techniques</li> </ul>
Assist with ecological survey and monitoring elsewhere in NSW Australia (one or more trips of 3-4 weeks duration)	<ul style="list-style-type: none"> <li>• <i>See South-east Intern</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>see South-east Intern</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>see South-east Intern</i></li> </ul>
Participate in staff meetings	<ul style="list-style-type: none"> <li>• Discuss issues relating to research and management</li> </ul>	<ul style="list-style-type: none"> <li>• Public speaking</li> <li>• Negotiation</li> </ul>	<ul style="list-style-type: none"> <li>• Ability to interact in a positive way with a range of staff</li> </ul>

## i. National Science

The information below summarises the proposed program for the National Science Intern. This is a new placement for 2023. Further details can be provided upon request.

### Dates of internship: March/April – September/October

- The National Science Intern will primarily be working with the GIS team on data management for the Fauna Observation Database (FOD) and may assist with conservation reports such as sanctuary fire and weed reports.
- This placement is different to the other placements available. It will be a hybrid arrangement of working from home or an office environment, depending on where the successful candidate is located.
- There will be a small field component (2-4 weeks), possibly with botany team or with a regional science team.
- The successful candidate must be comfortable with the placement being predominately desk-based and working with data. The candidate will have strong attention to detail, good data management skills. Some GIS skills or knowledge is desirable.

Objectives	Tasks	Learning outcomes	Evaluation of outcomes
Assist with data management for the Fauna Observation Database (FOD)	<ul style="list-style-type: none"> <li>• Liaise with ecologists across each region to compile and interrogate ecological data</li> <li>• Process and input data into FOD</li> </ul>	<ul style="list-style-type: none"> <li>• Increased knowledge of accurate data management</li> <li>• Capacity to work as part of a team in a complex project</li> </ul>	<ul style="list-style-type: none"> <li>• Attention to detail</li> <li>• Understanding of contemporary data management practices</li> </ul>
Assist with GIS support	<ul style="list-style-type: none"> <li>• Produce mapping for a range of projects</li> </ul>	<ul style="list-style-type: none"> <li>• Experience using GIS and QGIS</li> </ul>	<ul style="list-style-type: none"> <li>• Understanding of the scope of GIS in ecology</li> </ul>
Assist with the development of conservation reports (ie. fire and weeds)	<ul style="list-style-type: none"> <li>• Provide input into conservation reports</li> </ul>	<ul style="list-style-type: none"> <li>• Experience with strategic development</li> <li>• Report writing</li> </ul>	<ul style="list-style-type: none"> <li>• Ability to work collaboratively with a range of staff</li> </ul>

<p>Assist with biodiversity surveys and fauna monitoring programs to monitor the ecological health of the sanctuaries and responses to land management</p>	<ul style="list-style-type: none"> <li>• Conduct systematic live trapping, scat plot, observational, vegetation, audio recording, camera trapping, track and spotlighting surveys</li> <li>• Fauna identification</li> <li>• Fauna handling (including microchipping, collecting morphometric data and genetic samples)</li> <li>• Image processing from camera traps</li> <li>• Spotlighting</li> <li>• Targeted searches</li> <li>• Record data from field work</li> <li>• Enter data into established databases</li> </ul>	<ul style="list-style-type: none"> <li>• Increased knowledge of Australia’s fauna species and their conservation status</li> <li>• Experience with different survey techniques</li> <li>• Experience with identifying and handling a wide range of fauna including birds, small-medium mammals, reptiles and frogs</li> <li>• Quarantine and husbandry procedures</li> <li>• Value of accurate records</li> <li>• Team work</li> <li>• Use of GPS</li> </ul>	<ul style="list-style-type: none"> <li>• An understanding of conservation issues in Australia</li> <li>• Ability to use different capture methods and handle animals proficiently</li> <li>• Ability to identify and handle a range of Australian fauna</li> <li>• Ability to carry out fieldwork promptly and to schedule</li> <li>• Careful record keeping</li> <li>• Understanding of quarantine issues</li> <li>• Ability to work independently and as part of team</li> </ul>
<p>Participate in staff meetings</p>	<ul style="list-style-type: none"> <li>• Discuss issues relating to research and management</li> </ul>	<ul style="list-style-type: none"> <li>• Public speaking</li> <li>• Negotiation</li> </ul>	<ul style="list-style-type: none"> <li>• Ability to interact in a positive way with a range of staff</li> </ul>