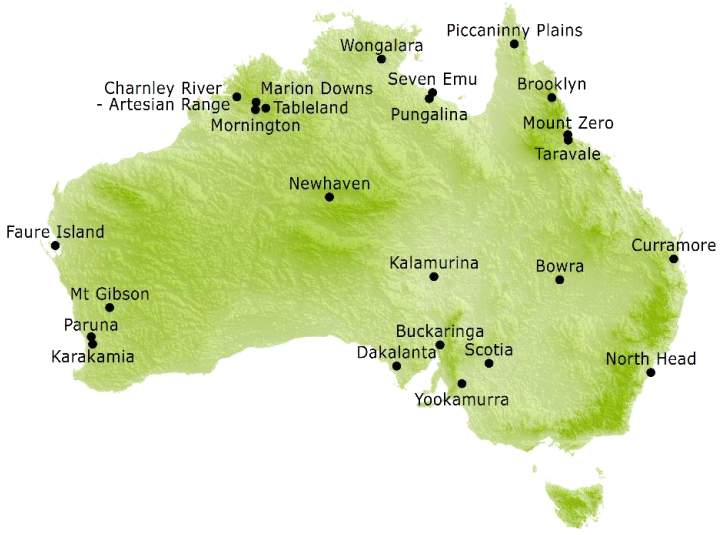
2017 AWC Intern Program

Australian Wildlife Conservancy (AWC) is an independent, non-profit organisation dedicated to the conservation of Australia's threatened wildlife and their habitats. Funded primarily by donations, AWC is taking action to protect Australia's wildlife by:

- Establishing a network of sanctuaries that protect threatened wildlife and ecosystems;
- Implementing practical, on-ground conservation programs to protect the wildlife at our sanctuaries: these programs include feral animal control, fire management, and the translocation of threatened species;
- Conducting scientific research that help address the key threats to our native wildlife; and
- Hosting visitor programs at our sanctuaries for the purpose of education and promoting awareness of the plight of Australia's wildlife.

AWC offers opportunities for promising graduate students to gain valuable field experience in conservation research via its Internship Program. In 2017, AWC will offer a total of ten 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 for the duration of the program, plus travel assistance.

- **North-west Interns** will spend **6 months** at Mornington, Marion Downs, Tableland, Charnley River-Artesian Range [WA], and Wongalara and Newhaven [NT].
- **South-west Interns (Karakamia, Paruna and Faure Island)** will spend **5 months** at Karakamia, Paruna and Faure with the possibility of brief visits to Mt Gibson [WA].
- **South-west Interns (Mt Gibson)** will spend **5 months** based at Mt Gibson [WA], with possible trips to one or more of the south-west sanctuaries.
- **South-east and NSW Interns** will spend **6 months** based at Scotia [NSW] with trips to Newhaven [NT], Mallee Cliffs, Pilliga [NSW], Dakalanta, Kalamurina, Buckaringa and/or Yookamurra [SA].
- **North Head Interns** will spend **4.5 months** based at North Head [Sydney, NSW], with possible trips to one or more of the south-east sanctuaries.



Required Skills/ Selection Criteria:

- A Bachelor degree (preferably with Honours) 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.
- 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.
- Must be able to conduct fieldwork for extended hours at night.
- Valid manual Australian (or internationally recognised) drivers' licence.
- 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.

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 blood sampling, pit tag insertion, animal sedation, 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.

Supervision:

Supervisors for interns in 2017 are listed below:

North-west

- Dr James Smith, Andrew Morton, Keith Bellchambers

South-west (Karakamia, Paruna, and Faure Island)

- Dr Michael Smith, Bryony Palmer, Chantelle Jackson

South-west (Mt Gibson)

- Dr Laura Ruykys, Noel Riessen, Dr Michael Smith

South-east and NSW

- Dr Leah Kemp, Dr Andrew Carter, Dr Viyanna Leo, Dr Laurence Berry, Keith Bellchambers, Felicity L'Hotellier, Dr Rod Kavanagh, Dr David Roshier

North Head

- Dr Jennifer Anson, Dr Rod Kavanagh

How to apply:

Email a cover letter (max. one page) and a separate section on how you meet the selection criteria, together with your up-to-date resume (CV), to intern@australianwildlife.org. Your application should be a single PDF file. In your letter, explain why you wish to apply for an internship and specify for which internship(s) you are interested in applying.

Applications must be received by 13th November 2016

For general **enquiries**, contact:

- South-east and North Head: Dr David Roshier david.roshier@australianwildlife.org
- North-west: Andrew Morton andrew.morton@australianwildlife.org
- South-west: Dr Michael Smith michael.smith@australianwildlife.org

Sanctuaries where the North-west Intern will be located:

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 WildlifeLink 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 Scaly-tailed Possum, Monjon, Black Grasswren, Western Giant Cave Gecko), as well as a number of threatened mammal species (Golden-backed Tree-rat, Northern Quoll) that have declined drastically from other parts of northern Australia. AWC's science program focuses on inventory and monitoring, plus research on the impacts of fire and feral cats on this unique community.

Newhaven lies at the southern edge of the Tanami Desert and protects a range of arid zone habitats and wildlife across its 260,000 ha. Brush-tailed Mulgara, Black-footed Rock-wallabies and Great Desert Skinks are examples of threatened species that live on Newhaven. AWC's science program is examining the impact of fire and feral animals on native wildlife, in order to help us manage these threats to desert ecosystems more effectively.

Wongalara covers 190,000 ha at the southern edge of Arnhem Land. It has the largest (at 100,000 ha) feral herbivore-free area in northern Australia, and an important site in a nationally significant project on the impacts of feral cats. The science program there is helping us to understand and manage the threats to north Australia's wildlife, especially the impacts of changed fire patterns, introduced herbivores and feral cats.

Sanctuaries where the South-west Intern (Karakamia, Paruna, Faure Island) will be located:

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), Tammar Wallaby, Quokka, Numbat, and the Western Ringtail Possum.

Paruna is located in the Avon Valley east of Perth. The sanctuary was established by AWC in 1998 to create a 2000 ha wildlife corridor between two regionally significant National Parks: Walyunga National Park to the southwest and Avon Valley National Park to the northeast. The majority of the Paruna sanctuary is pristine vegetation, dominated by Wandoo and Powderbark woodlands. The sanctuary supports populations of Black-flanked Rock-wallaby, Tammar Wallaby, Southern Brown Bandicoot (Quenda) and Chuditch (Western Quoll).

Faure Island is AWC's only offshore sanctuary, located within the Shark Bay World Heritage Area. At almost 6000 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 Western Barred Bandicoot.

Also the possibility for visits to ***Mt Gibson*** which covers 130500 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. AWC has established a 7,800 hectares feral-free area – the largest cat and fox-free area on mainland WA – into which at least 10 regionally extinct mammals will be reintroduced. Greater Stick-nest Rats, Numbats and Brush-tailed Bettongs (Woylies) have already been introduced into the feral predator-free enclosure on the sanctuary.

Sanctuaries where the South-west (Mt Gibson) Intern will be located:

Mt Gibson covers 130500 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. AWC has established a 7,800 hectares feral-free area – the largest cat and fox-free area on mainland WA – into which at least 10 regionally extinct mammals will be reintroduced. Greater Stick-nest Rats, Numbats and Brush-tailed Bettongs (Woylies) have already been introduced into the feral predator-free enclosure on the sanctuary.

In 2017, it is likely that Mt Gibson interns will also visit one or more of the **south-west sanctuarie**s, to assist in the science program there and broaden their internship experience.

Sanctuaries where the South-east and NSW Intern will be located:

Scotia protects 65,000 ha of mallee in western NSW. AWC is implementing an effective feral animal control program and a reintroduction program for threatened fauna, based out of Scotia's 'Cook Field Research Centre'. To date, seven regionally extinct and highly endangered mammal species and a bird have been reintroduced to the largest feral-free area on the mainland (8,000 ha), including Numbat, Greater Bilby, Burrowing Bettong, Brush-tailed Bettong and Bridled Nailtail Wallaby. AWC's science program monitors the status of these reintroduced species, plus the impacts of its land management programs on the biodiversity of the sanctuary.

Yookamurra near Sedan, SA, protects reintroduced populations of several highly endangered mammal species, including Brush-tailed Bettong, Numbat and Greater Bilby. AWC's science program monitors the status of these populations.

Kalamurina is the largest private reserve in Australia, located on the northern shores of Lake Eyre. The three major rivers that drain into the lake travel through the sanctuary via the Warburton Groove. Its vast desert landscapes protect a range of threatened ecosystems and fauna, such as Dusky Hopping Mice and Crest-tailed Mulgara.

Buckaringa in the central Flinders Ranges protects an important colony of Yellow-footed Rock Wallabies. 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.

Newhaven lies at the southern edge of the Tanami Desert and protects a range of arid zone habitats and wildlife across its 260,000 ha. Brush-tailed Mulgara, Black-footed Rock-wallabies and Great Desert Skinks are examples of threatened species that live on Newhaven. AWC's science program is examining the impact of fire and feral animals on native wildlife, in order to help us manage these threats to desert ecosystems more effectively.

Pilliga and ***Mallee Cliffs*** are new projects, run by AWC in partnership with the NSW Government, in the semi-arid woodlands of western NSW. These projects are part of an exciting initiative to reintroduce regionally-extinct mammals to NSW. Biodiversity survey programs at these sanctuaries are being established now and there may be opportunities in 2017 to surveys of all vertebrate taxa at these new sanctuaries.

Sanctuaries where the North Head Intern will be located:

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 on wildlife management and works intensively on reintroduced Bush Rats and possibly other species, conservation of the endangered Long-nosed Bandicoot population and the endangered Eastern Suburbs Banksia Scrub ecological community.

In 2017, it is likely that North Head interns will also visit one or more of the **south-east and NSW sanctuarie**s, to assist in the science program there and broader their internship experience.

North-west Intern

The table below summarises the tasks that the North-west Intern will undertake at Newhaven, Mornington, Marion Downs, Tableland, Charnley River-Artesian Range and Wongalara. **Dates of internship: April - September 2017**

Objectives	Tasks	Learning outcomes	Evaluation of outcomes
Biological surveys in the arid zone Newhaven (April to early May)	• Carry out surveys at a series of permanent trapping sites • Fauna trapping • Fauna handling (including measuring, genetic sampling) • Vegetation surveys • Record keeping • Enter data from field work meticulously and as instructed	• Experience with different trapping techniques • Experience with animal handling • Vegetation survey techniques • Experience with arid zone ecology • Use of GPS • Team work • Value of accurate records	• An understanding of conservation issues in arid Australia • Ability to learn a variety of monitoring techniques • Ability to handle animals • Knowledge of vegetation survey techniques • Accurate record keeping and data entry • Ability to work independently and as part of team
Fauna and flora survey • to examine the effects of fire and large herbivores on biodiversity Mornington, Marion Downs, Tableland and Charnley River-Artesian Range (mid May to late July)	• Carry out surveys at a series of permanent trapping sites • Fauna trapping • Fauna handling (including measuring, genetic sampling) • Vegetation sampling • Record keeping • Enter data from field work meticulously and as instructed	• Experience with different trapping techniques • Experience with animal handling • Vegetation sampling techniques • Experience with northern Australian ecology • Use of GPS • Team work • Value of accurate records	• An understanding of conservation issues in northern Australia • Ability to use different capture methods and handle animals proficiently • Knowledge of vegetation sampling methods • Accurate record keeping and data entry • Ability to work independently and as part of team
Predator dynamics • to estimate population density and distribution of Dingoes and cats • to estimate population size of Northern Quolls	• Set up camera traps, download photos and store data • Conduct mark-recapture survey of Northern Quolls	• Experience with different trapping techniques • Experience with animal handling • Experience with northern Australian ecology • Team work	• An understanding of conservation issues in northern Australia • Ability to use different capture methods and handle animals proficiently

Objectives	Tasks	Learning outcomes	Evaluation of outcomes
Mornington and Marion Downs (intermittently between other activities)		• Experience with camera trap technology • Experience with PIT tagging	• Accurate record keeping and data entry • Ability to work independently and as part of team
Surveys to examine • The effect of feral herbivores on biodiversity and vegetation structure • The impact of feral cats on small mammals and reptiles Wongalara (August)	• Carry out surveys at a series of permanent trapping sites • Fauna trapping • Fauna handling (including measuring, genetic sampling) • Vegetation sampling • Track surveys • Record keeping • Enter data from field work meticulously and as instructed	• Experience with different trapping techniques • Experience with animal handling • Vegetation sampling techniques • Track survey techniques • Experience with northern Australian ecology • Team work • Value of accurate records	• An understanding of ecosystem functioning • Ability to use different capture methods and handle animals proficiently • Knowledge of vegetation sampling methods • Accurate record keeping and data entry • Ability to work independently and as part of team • Ability to lead a team
Bird census • Annual survey to measure abundance of seed-eating birds (finches, pigeons, quail, parrots) Mornington (September)	• Participate in granivore counts at waterholes • Assist in collection and organisation of data from volunteers	• Experience with bird survey techniques • Data organisation and management • Volunteer management	• Ability to use different survey methods • Accurate record keeping and data entry • Ability to work as part of a team • Ability to direct and assist volunteers

South-west Intern (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: 1. February to July 2017 2. July to December 2017.**

Objectives	Tasks	Learning outcomes	Evaluation of outcomes
To assist with the fauna reintroduction program (of endangered species) at Faure Island, Karakamia, and Paruna Wildlife Sanctuaries (plus the possibility of fauna reintroduction program at Mt Gibson) • Conduct systematic live trapping, scat plot, camera trapping, track surveys or transect surveys of Burrowing Bettong, Western Barred Bandicoot, Banded Hare-wallaby, Shark Bay Mouse, Woylie, Tammar Wallaby and populations • Monitor health of reintroduced populations	• Fauna trapping • Fauna handling (including micro-chipping, taking of morphometrics and tissue sampling) • Learn and adhere to quarantine protocols • Camera trapping • Scat identification • Spotlighting • Transportation of animals • Record data from field work	• Increased knowledge of Australia's fauna species and their conservation status • Capture and handling techniques • Translocation methods • Quarantine and husbandry procedures • Use of GPS • Team work • Value of accurate records • Knowledge of alternative approaches to monitoring	• An understanding of conservation issues in Australia • Ability to use different capture methods and handle animals proficiently • Understanding of quarantine issues • Ability to work independently and as part of team
To assist with biodiversity surveys at Karakamia, Paruna, Faure Island and possibly Mt Gibson	• Undertake surveys at a series of permanent monitoring sites • Fauna trapping (including the installation of sites and trap checking) • Fauna identification • Fauna handling (including measuring, genetic sampling) • Camera-trapping • Ink card surveys • Targeted searches • Songmeter survey • Bird surveys • Record data from field work	• Increased knowledge of Australia's fauna species and their conservation status • Experience with different trapping techniques • Experience with handling a wide range of fauna • Quarantine and husbandry procedures • Value of accurate records • Use of GPS	• An understanding of conservation issues in Australia • Ability to use different capture methods and handle animals proficiently • Ability to identify and handle a range of Australian fauna • Ability to carry out fieldwork promptly and to schedule • Careful record keeping • Understanding of quarantine issues • Ability to work independently and as part of team
If required, to assist with the Mammal Restoration Project at Mt Gibson	• Assist with population monitoring at source sites • Fauna trapping	• Increased knowledge of Australia's fauna species and their conservation status	• An understanding of conservation issues in Australia

	• Fauna handling • Learn and adhere to animal welfare protocols • Trapping, radio-collaring and telemetry of reintroduced species	• Working with external organisations and government departments • Capture and handling of animals • Animal welfare and husbandry procedures • Team work	• Ability to use different capture methods and handle animals proficiently • Understanding of animal welfare issues • Ability to work as part of a team
Participate in staff meetings	• Discuss issues relating to research and management	• Public speaking • Negotiation	• Ability to interact in a positive way with a range of staff

South-west Intern (Mt Gibson Intern)

The table below summarises the tasks that the South-west Mt Gibson Intern will undertake at Mt Gibson. **Dates of internship: 1.February to July 2017 2. July to December 2017.**

Objectives	Tasks	Learning outcomes	Evaluation of outcomes
Assist with biodiversity surveys and fauna monitoring programs at Mt Gibson	• Carry out surveys at a series of permanent monitoring sites • Fauna trapping, identification and handling (including measuring, micro-chipping, genetic/ blood sampling) • Camera-trapping • Radio telemetry • Track surveys • Targeted searches • Bird surveys • Record data from field work	• Increased knowledge of Australia's fauna species and their conservation status • Experience with different trapping techniques • Experience with handling a wide range of fauna • Translocation methods • Animal welfare and husbandry procedures • Careful record keeping • Accurate navigation • Use of GPS	• An understanding of conservation issues in Australia • Ability to use different capture methods and handle animals proficiently • Ability to identify and handle a range of Australian fauna • Ability to carry out fieldwork promptly and to schedule • Careful record keeping • Understanding of animal welfare issues • Ability to work independently and as part of team
Assist with the Mammal Restoration Project at Mt Gibson	• Assist with population monitoring at source sites • Fauna trapping • Fauna handling • Learn and adhere to animal welfare protocols • Trapping, radio-collaring and telemetry of reintroduced species	• Increased knowledge of Australia's fauna species and their conservation status • Working with external organisations and government departments • Capture and handling of animals • Animal welfare and husbandry procedures • Team work	• An understanding of conservation issues in Australia • Ability to use different capture methods and handle animals proficiently • Understanding of translocation methods • Ability to work as part of a team

South-east and NSW Intern

The table below summarises the program for the Southeast Intern: Scotia, Dakalanta, Kalamurina, Buckaringa, Newhaven and Yookamurra. **Dates of internship: 1. February - July 2017 2. July – December 2017**

Objectives	Tasks	Learning outcomes	Evaluation of outcomes
To assist with the fauna reintroduction program (of endangered species) at Scotia and Yookamurra Wildlife Sanctuaries • Conduct systematic trapping or transect surveys of Boodie, Woylie, Greater Bilby, Bridled Nailtail Wallaby and Numbat populations • Monitor health of reintroduced populations	• Fauna trapping • Fauna handling (including micro-chipping, taking of morphometrics, tissue and blood sampling) • Captive animal husbandry • Assist vets with treatment of animals • Learn and adhere to quarantine protocols • Record data from field work	• Increased knowledge of Australia's fauna species and their conservation status • Capture and handling techniques • Translocation methods • Quarantine and husbandry procedures • Use of GPS • Team work • Value of accurate records • Knowledge of alternative approaches to monitoring	• An understanding of conservation issues in Australia • Ability to use different capture methods and handle animals proficiently • Understanding of quarantine issues • Ability to work independently and as part of team
To undertake biodiversity surveys at Yookamurra, Scotia, Dakalanta, Kalamurina, Newhaven, Pilliga, Mallee Cliffs and/or Buckaringa sanctuaries	• Fauna identification • Fauna trapping (installing monitoring sites, setting traps, checking traps) • Fauna handling and data collection • Record data from field work	• Increased knowledge of Australia's fauna • Experience with different trapping techniques • Experience with handling a wide range of fauna • Use of GPS • Accurate record keeping • Accurate navigation	• Ability to identify and demonstrate knowledge of Australia's fauna • Ability to carry out fieldwork efficiently and to manage time • Ability to handle and collect data from a wide range of fauna • Accurate record keeping • Ability to work independently and as part of team
To assist with feral animal research	• Carry out track surveys throughout Scotia to monitor foxes, cats.	• Understanding of indices as a method of monitoring wildlife • Knowledge of pest animal control techniques	• Ability to identify tracks of terrestrial fauna • Ability to derive indices of abundance

Objectives	Tasks	Learning outcomes	Evaluation of outcomes
	• Carry out monitoring of pest animal control techniques • Trapping, radio collaring and telemetry of foxes and cats	• Knowledge of introduced species ecology	• Ability to locate tagged animals
Participate in staff meetings	• Discuss issues relating to research and management	• Public speaking • Negotiation	• Ability to interact in a positive way with a range of staff

North Head Intern

The table below summarises the program for the North Head Intern. **Dates of internship: 1. March - July 2017 2. July – November 2017.**

Objectives	Tasks	Learning outcomes	Evaluation of outcomes
Assist with fauna monitoring at North Head	• Mammal trapping • Animal handling (including micro-chipping, measuring, genetic/ blood sampling) • Radio- and GPS- tracking • Camera trapping • Spotlight surveys • Frog surveys • Habitat assessments • Record data from field work	• Increased knowledge of Australia's fauna species and their conservation status • Experience with different trapping techniques • Experience with handling a wide range of fauna • Use of GPS • Careful record keeping	• Understanding conservation issues in Australia • Ability to use different capture methods, identify a range of fauna species, and handle animals proficiently • Ability to work independently and as part of team
Assist with fauna reintroduction projects at North Head	• Fauna trapping and handling • Habitat assessment • Assist with logistics • Monitor and record outcomes (as above)	• Increased knowledge of reintroduction practices • Capacity to work as part of a team in a complex project	• Understanding of contemp-orary reintroduction practices • Ability to work independently and as part of a team
Assist with monitoring restoration of Eastern Suburbs Banksia Scrub at North Head	• Vegetation surveys	• Increased knowledge of Australia's flora and its management • Vegetation survey techniques	• Understanding of vegetation conservation issues • Ability to use vegetation survey techniques
Assist with ecological survey and monitoring elsewhere in SE Australia (one or more trips of 3-4 weeks duration)	• see South-east Intern	• see South-east Intern	• see South-east Intern
Participate in staff meetings	• Discuss issues relating to research and management	• Public speaking • Negotiation	• Ability to interact in a positive way with a range of staff