

AWC Intern Program

2012

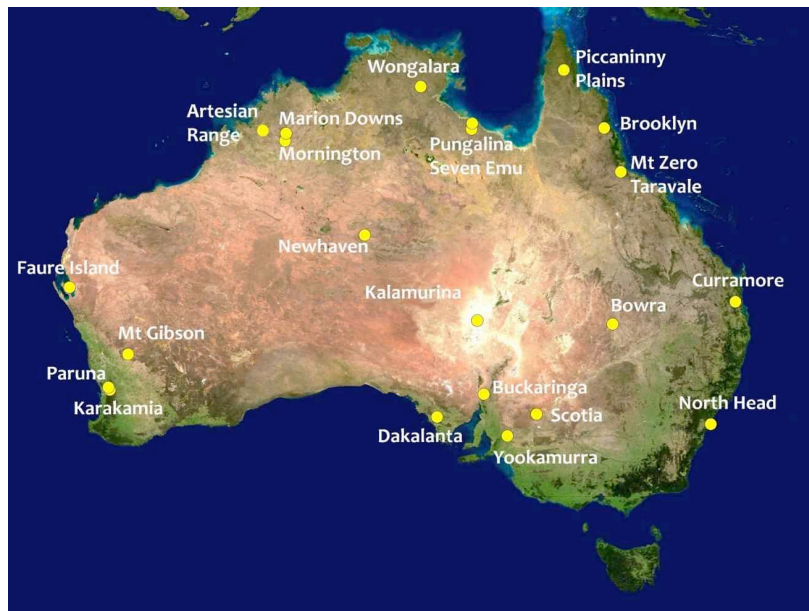


Australian Wildlife Conservancy (AWC) is an independent, non-profit organisation dedicated to the conservation of Australia's threatened wildlife and their habitats. Funded primarily by tax-deductible donations, AWC is taking action to protect Australia's wildlife by:

- 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 Australia's wildlife.

AWC offers opportunities for promising graduate students to gain valuable field experience in conservation research via its Internship Program. AWC provides several internships a year, each with an exciting training program designed to introduce budding 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.

- Southeast Interns will spend six months spread between Scotia, Dakalanta, Kalamurina, Buckaringa and Yookamurra, or at North Head;
- Northwest Interns will spend six months spread between Mornington, Marion Downs, Artesian Range, Wongalara and Newhaven.



Supervision:

The Interns will be under the supervision of several AWC staff ecologists, including:

Southeast

- Dr Matt Hayward
- Dr Leah Kemp
- Keith Bellchambers
- Felicity l'Hotellier
- Jennifer Cathcart
- Tony Cathcart
- Cameron Radford

Northwest

- Dr James Smith
- Dr Alex James
- Dr Katherine Tuft
- Danae Moore

Required Skills before embarking on training:

- A Bachelors degree in ecology or be in the latter stages of this degree; an Honours degree is desirable
- Some experience of data collection and management
- Ability to learn identification of Australian flora and fauna
- Introductory experience with
 - small mammal and reptile trapping and handling techniques
 - bird survey techniques
 - bird trapping and handling techniques
- Knowledge and appreciation of animal welfare issues
- Introductory ability to use and manipulate data storage software
- High level of fitness
- Ability to use maps and GPS for navigation
- Drivers licence
- An ability to speak English is essential

Training program

AWC has constructed a training program that will

- Enable the Interns to experience a range of Australia's ecosystems (eg. the arid zone, the mallee, the tropics), and its 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 and radio-tracking
 - animal husbandry
 - radio-tracking
 - vegetation surveys.

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.



Sanctuaries visited by the Southeast Intern based at Scotia

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 have been reintroduced to the largest feral-free area on the mainland (8,000 ha), including Numbats, Bilbies and Bridled Nailtail Wallabies. 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 protects reintroduced populations of several highly endangered mammal species, including Brush-tailed Bettongs and Bilbies. AWC's science program monitors the status of these populations.

Kalamurina is the largest private reserve in Australia. It hugs the northern shores of Lake Eyre and 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.

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.

Sanctuaries visited by the Southeast Intern based at North Head

North Head, overlooking Sydney Harbour at Manly, protects the largest remaining patch of a Banksia heath community that used to be widespread along the Sydney coastline, as well as an endangered population of Long-nosed Bandicoots, and a reintroduced population of Boguls (native Bush Rats). AWC is carrying out a science program at North Head that aims to help us conserve this headland's special ecological values.

Sanctuaries visited by the Northwest Intern

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. 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.

Mornington and **Marion Downs** protect over 600,000 ha of the central Kimberley. 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.

Artesian Range lies in the northwest Kimberley, the only part of Australia that hasn't experienced any animal 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, plus research on the impacts of fire and feral cats on this unique community.

Wongalara covers 190,000 ha at the southern edge of Arnhem Land. Fire management and feral animal control programs are protecting its diverse ecosystems and fauna. 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.



How to apply

Email your up-to-date resume with a one page cover letter to Intern@australianwildlife.org. In your letter:

- Explain why you wish to apply for an internship
- Briefly describe how you meet the required skills listed above
- Specify whether you are interested in the southeast or northwest internship (or both)

Applications must be received by 23 December 2011.

For general enquiries, you can call:

- Southeast Intern: Matt Hayward – 03 5024 5859
- Northwest Intern: Katherine Tuft – 08 9191 7014



Dr Katherine Tuft shows Monica Griffith a Golden-backed Tree-rat at the Artesian Range Sanctuary.



Southeast Intern based at Scotia

The table below summarises the program for the Southeast Intern based at Scotia and visiting Dakalanta, Kalamurina, Buckaringa and Yookamurra.
 Dates: Scotia based intern: 1st of April to end of October 2012.

Objectives	Tasks	Learning outcomes	Evaluation (assessment of outcomes)
<p>To assist with the fauna reintroduction program (of endangered species) at Scotia and Yookamurra Wildlife Sanctuaries</p> <ul style="list-style-type: none"> • Monitor movements and survival of radio-collared Bridled Nailtail Wallabies, Woylies and Mala (via radio telemetry) • Management of captive population of Bridled Nailtail Wallabies • Monitor (via systematic trapping and Distance Sampling surveys) Boodies, Woylies, Bilbies, Bridled Nailtail Wallabies • Monitor Stick-nest Rats (via systematic search) • Monitor Numbats (using track surveys) 	<ul style="list-style-type: none"> • Fauna trapping • Fauna handling (including micro-chipping, measuring, blood sampling) • Radio telemetry • Track surveys • Targeted searches • Captive animal husbandry • Assist vets with treatment of animals • Learn and adhere to quarantine protocols • Enter data from field work meticulously 	<ul style="list-style-type: none"> • Increased knowledge of Australia's fauna species and their conservation status • Capture and handling techniques • Translocation methods • Quarantine and husbandry procedures • Team work • Value of careful records • Knowledge of alternative approaches to monitoring 	<ul style="list-style-type: none"> • 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
<p>To undertake biodiversity surveys at Yookamurra, Scotia, Dakalanta, Kalamurina and Buckaringa sanctuaries</p>	<ul style="list-style-type: none"> • Fauna identification • Fauna trapping (installing monitoring sites, setting traps, checking traps) • Fauna handling and data collection • Record keeping; enter data from field work meticulously 	<ul style="list-style-type: none"> • Increased knowledge of Australia's fauna • Experience with different trapping techniques • Experience with handling a wide range of fauna • Careful record keeping • Accurate navigation 	<ul style="list-style-type: none"> • Ability to identify and demonstrate knowledge of Australia's fauna • Ability to carry out fieldwork promptly and to schedule • Ability to handle and collect data from a wide range of fauna • Careful record keeping • Ability to work independently and as part of team



Objectives	Tasks	Learning outcomes	Evaluation (assessment of outcomes)
To assist with bird surveys at Scotia Wildlife Sanctuary	<ul style="list-style-type: none"> • Carry out surveys for the Black-eared Miner (Endangered) • Carry out monitoring of Malleefowl (Vulnerable) • Assist with general bird surveys at Scotia • Enter data from field work meticulously and as instructed 	<ul style="list-style-type: none"> • Understanding of robust sampling designs in ecology • Careful record keeping • Experience with analysis of results 	<ul style="list-style-type: none"> • Ability to understand sampling design • Ability to collect data carefully, and perform simple analysis
To assist with feral animal research	<ul style="list-style-type: none"> • Carry out track surveys throughout Scotia to monitor foxes, cats, Dingoes, goats and cattle. • Carry out monitoring of pest animal control techniques • Trapping, radio collaring and telemetry of foxes and cats 	<ul style="list-style-type: none"> • Understanding of indices as a method of monitoring wildlife • Knowledge of pest animal control techniques • Knowledge of introduced species ecology 	<ul style="list-style-type: none"> • Ability to identify tracks of terrestrial fauna • Ability to understand the calculation and data collection required to derive indices of abundance
Participate in staff meetings	<ul style="list-style-type: none"> • Discuss issues relating to research and management 	<ul style="list-style-type: none"> • Public speaking • Negotiation 	<ul style="list-style-type: none"> • Ability to interact in a positive way with peers



Southeast Intern based at North Head

The table below summarises the program for the Southeast Intern based at North Head.

Dates: Sydney-based intern: 1st of April to end of October 2012

Objectives	Tasks	Learning outcomes	Evaluation (assessment of outcomes)
To assist with the fauna monitoring program at North Head Sanctuary <ul style="list-style-type: none"> • Monitor movements and survival of radio-collared Boguls and Long-nosed Bandicoots • Monitor (via trapping and Distance Sampling) Boguls, Long-nosed Bandicoots, Common Brushtail Possums, Common Ringtail Possums, Black Rats 	<ul style="list-style-type: none"> • Fauna trapping • Fauna handling (including micro-chipping, measuring) • Radio telemetry • Track surveys • Targeted searches for Broad-headed Snakes and suitable habitat • Enter data from field work meticulously 	<ul style="list-style-type: none"> • Increased knowledge of Australia's fauna and their conservation status • Capture and handling techniques • Translocation methods • Quarantine and husbandry procedures • Team work • Value of careful records • Knowledge of alternative approaches to monitoring 	<ul style="list-style-type: none"> • 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 general fauna monitoring at North Head <ul style="list-style-type: none"> • Cat trapping • Invertebrate surveys • Possibly pitfall surveys 	<ul style="list-style-type: none"> • Fauna trapping • Animal handling • Radio telemetry • Camera trapping • Invertebrate sampling 	<ul style="list-style-type: none"> • Increased knowledge of Australia's fauna • Animal handling techniques • Team work • Careful record keeping 	<ul style="list-style-type: none"> • Understanding of conservation issues in Australia • Using different capture methods and handle animals proficiently • Understanding quarantine issues • Ability to work independently and as part of team
To assist with bird surveys at North Head Sanctuary	<ul style="list-style-type: none"> • Assist with general bird surveys at North Head • Enter data from field work meticulously and as instructed 	<ul style="list-style-type: none"> • Understanding of robust sampling designs in ecology • Careful record keeping • Experience with analysis of results 	<ul style="list-style-type: none"> • Ability to understand sampling design • Ability to collect data carefully, and perform simple analysis
To assist with feral animal research	<ul style="list-style-type: none"> • Carry out track and camera surveys to monitor foxes, cats and rabbits. • Carry out monitoring of pest animal control techniques 	<ul style="list-style-type: none"> • Understanding indices as a method of monitoring wildlife • Knowledge of pest animal control techniques and ecology 	<ul style="list-style-type: none"> • Ability to identify tracks of terrestrial fauna • Ability to understand data required to derive indices
Participate in staff meetings and interact with research partners	<ul style="list-style-type: none"> • Discuss issues relating to research and management 	<ul style="list-style-type: none"> • Public speaking • Negotiation 	<ul style="list-style-type: none"> • Ability to interact in a positive way with peers



Northwest Intern

The table below summarises the skills that the Northwest Interns will develop at Newhaven, Mornington, Marion Downs, Artesian Range and Wongalara. Dates: 26th March to 30th September 2012

Objectives	Tasks	Learning outcomes	Evaluation (assessment of outcomes)
<p>Biological surveys in the arid zone</p> <p>Newhaven (April to early May)</p>	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Experience with different trapping techniques • Experience with animal handling • Vegetation sampling techniques • Experience with arid zone ecology • Team work • Value of careful records 	<ul style="list-style-type: none"> • An understanding of conservation issues in arid Australia • Ability to learn a variety of monitoring techniques • Ability to handle animals • Knowledge of vegetation sampling techniques • Accurate record keeping and data entry • Ability to work independently and as part of team
<p>Fauna and flora survey</p> <ul style="list-style-type: none"> • to examine the effects of fire and large herbivores on biodiversity <p>Mornington -Marion Downs, and Artesian Range (mid May to late July)</p>	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Experience with different trapping techniques • Experience with animal handling • Vegetation sampling techniques • Experience with northern Australian ecology • Team work • Value of careful records 	<ul style="list-style-type: none"> • 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
<p>Predator dynamics</p> <ul style="list-style-type: none"> • to estimate population density and distribution of dingoes • to investigate the hunting behaviour of cats in relation to fire and grazing 	<ul style="list-style-type: none"> • Set and check dingo and cat traps • Conduct spotlighting for cats • Handle dingoes and cats (including measuring, ear tagging) • Radio telemetry tracking of cats • Set up camera traps, download photos and store data 	<ul style="list-style-type: none"> • Experience with different trapping techniques • Experience with animal handling • Experience with northern Australian ecology • Team work • Experience with camera and 	<ul style="list-style-type: none"> • An understanding of conservation issues in northern Australia • Ability to use different capture methods and handle animals proficiently • Accurate record keeping and data entry



Mornington and Marion Downs (intermittently between other activities)	<ul style="list-style-type: none"> Track surveys 	<ul style="list-style-type: none"> telemetry technology Insight into the use of trained dogs in wildlife survey and research 	<ul style="list-style-type: none"> Ability to work independently and as part of team
<p>Surveys to examine:</p> <ul style="list-style-type: none"> The effect of feral herbivores on biodiversity and vegetation structure The impact of feral cats on small mammals and reptiles <p>Wongalara (August)</p>	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Experience with different trapping techniques Experience with animal handling Vegetation sampling techniques Track survey techniques Experience with northern Australian ecology Team work Value of careful records 	<ul style="list-style-type: none"> 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
<p>Finch census</p> <ul style="list-style-type: none"> Annual survey to measure abundance index of finches <p>Mornington (September)</p>	<ul style="list-style-type: none"> Participate in finch counts at waterholes Assist in collection and organisation of data from volunteers 	<ul style="list-style-type: none"> Experience with bird survey techniques Data organisation and management Volunteer management 	<ul style="list-style-type: none"> 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
Independent research project	<ul style="list-style-type: none"> Interns are encouraged to develop their own small research project at one of the sanctuaries Produce a brief report 	<ul style="list-style-type: none"> Experience designing, organising and conducting research Scientific writing 	<ul style="list-style-type: none"> Ability to design research projects Ability to lead a project Ability to write concisely and clearly

