

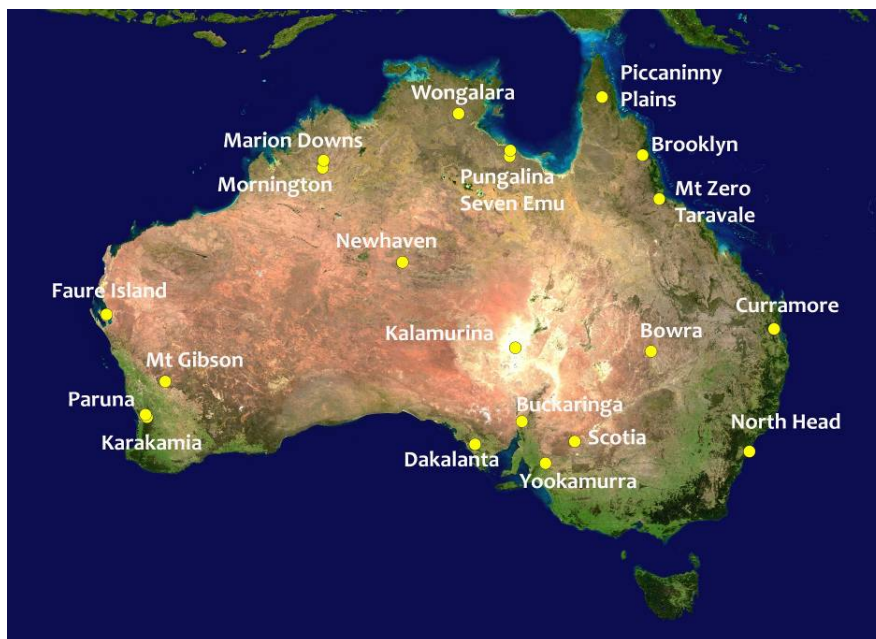
## AWC 2011 Intern Program

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 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 basic accommodation at the sanctuaries (this may include a tent for some periods), a modest stipend to cover food and incidentals for the duration of the program, and an allowance towards travel at the beginning and end of the program. The cost of travel between sanctuaries during the program is covered by AWC.

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



**Supervision:**

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

## Southeast

- Dr Matt Hayward
- Keith Bellchambers
- Felicity L'Hotellier
- Jennifer Cathcart

## Northwest

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

**Required Skills before embarking on training:**

- An Honours degree in ecology or be in the latter stages of this degree
- 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
- An ability to speak English is essential
- Drivers licence

**Training program**

AWC has constructed a training program that will:

- Enable the Interns to experience a range of Australia's ecosystems (eg. arid zone, the mallee, the tropics), and its flora and fauna.
- Provide the Interns with training in a wide variety of field techniques including:
  - different types of surveys and trapping techniques,
  - the capture and handling of many different types of animals,
  - specialist skills such as blood sampling and radio-tracking,
  - animal husbandry ,
  - plant collection and herbarium preparation, and
  - vegetation surveys.



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

### How to apply

Email your up-to-date resume with a one page cover letter to [Intern@australianwildlife.org](mailto: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 northwest or southeast internship (or both)

**Applications must be received by 31 January 2011.**

For general enquiries, you can call:

- Northwest Intern: Katherine Tuft or James Smith: 08 9191 7014 (*after 4 January 2011*)
- Southeast Intern: Matt Hayward: 03 5024 5859 (*after 14 January 2011*)



*Bryony Palmer with a sandstone false antechinus at Pungalina-Seven Emu*



*Claire Foster with an orange-naped snake at Wongalara*



## Sanctuaries visited by the southeast Intern

**Scotia** protects 65,000 ha of mallee in western NSW. AWC is implementing an effective feral animal control program and a highly successful translocation program, based out of its 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.

**North Head** 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. 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 animals 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 field research centre is the base for an award-winning science and conservation program that is helping to protect iconic species like the Gouldian Finch, Northern Quoll and Purple-crowned Fairy-wren.

**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, including whether Dingoes can effectively control feral cats.



**Southeast Intern** - The table below summarises the program for the Southeast Intern at Scotia, Dakalanta, Kalamurina, Buckaringa, North Head and Yookamurra. **Dates: 21<sup>st</sup> of February 2011 to end of July 2011**

| Objectives   | Tasks   | Learning outcomes   | Evaluation<br>(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"> <li>• Monitor movements and survival of radio-collared Bridled Nailtail Wallabies, Woylies and Numbats (via radio telemetry)</li> <li>• Management of captive population of Bridled Nailtail Wallabies</li> <li>• Monitor reintroduced populations (via systematic trapping surveys) of Boobies, Woylies, Bilbies, Bridled Nailtail Wallabies</li> <li>• Monitor reintroduced population of Stick-nest Rats (via systematic search)</li> <li>• Monitor reintroduced Numbat population (using track surveys)</li> </ul> | <ul style="list-style-type: none"> <li>• Fauna trapping</li> <li>• Fauna handling (including micro-chipping, measuring, blood sampling)</li> <li>• Radio telemetry</li> <li>• Track surveys</li> <li>• Targeted searches</li> <li>• Captive animal husbandry</li> <li>• Assist vets with treatment of animals</li> <li>• Learn and adhere to quarantine protocols</li> <li>• Enter data from field work meticulously</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>• Team work</li> <li>• Value of careful 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>  |
| <p>To undertake biodiversity surveys at Scotia, Dakalanta, Kalamurina and Buckaringa sanctuaries</p>   | <ul style="list-style-type: none"> <li>• Fauna identification</li> <li>• Fauna trapping (installing monitoring sites, setting traps, checking traps)</li> <li>• Fauna handling and data collection</li> <li>• Record keeping; enter data from field work meticulously</li> </ul>  | <ul style="list-style-type: none"> <li>• Increased knowledge of Australia's fauna</li> <li>• Experience with different trapping techniques</li> <li>• Experience with handling a wide range of fauna</li> <li>• Careful 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</li> <li>• Ability to carry out fieldwork promptly and to schedule</li> <li>• Ability to handle wide range of fauna and collect data from them</li> <li>• Care of record keeping</li> <li>• Ability to work independently and as part of team</li> </ul> |



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|--|--|---|---|
| To assist with bird surveys at Scotia Wildlife Sanctuary   | <ul style="list-style-type: none"> <li>• Carry out surveys for the Black-eared Miner (Endangered)</li> <li>• Carry out surveys for Malleefowl (Vulnerable)</li> <li>• Assist with general bird surveys at Scotia</li> <li>• Enter data from field work meticulously and as instructed</li> </ul> | <ul style="list-style-type: none"> <li>• Understanding of robust sampling designs in ecology</li> <li>• Careful record keeping</li> <li>• Experience with analysis of results</li> </ul>                                  | <ul style="list-style-type: none"> <li>• Ability to understand sampling design</li> <li>• Ability to collect data carefully, and perform simple analysis</li> </ul>   |
| To assist with feral animal research   | <ul style="list-style-type: none"> <li>• Carry out track surveys throughout Scotia to monitor foxes, cats, Dingoes, goats and cattle.</li> <li>• Carry out monitoring of pest animal control techniques</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 understand the calculation and data collection required to derive indices of abundance.</li> </ul>   |
| Participate in sanctuary and regional meetings   | <ul style="list-style-type: none"> <li>• Discuss issues relating to research and management from a sanctuary and regional perspective.</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 stakeholders and peers.</li> </ul>   |
| To assist with fauna monitoring at North Head <ul style="list-style-type: none"> <li>- Black rat / bush rat trapping</li> <li>- Bandicoot trapping</li> <li>- Cat trapping</li> <li>- Invertebrate surveys</li> <li>- Bandicoot telemetry</li> </ul> | <ul style="list-style-type: none"> <li>• Fauna trapping</li> <li>• Animal handling</li> <li>• Radio telemetry</li> <li>• Camera trapping</li> <li>• Invertebrate sampling</li> </ul>   | <ul style="list-style-type: none"> <li>• Increased knowledge of Australia's fauna</li> <li>• Animal handling techniques</li> <li>• Team work</li> <li>• Careful record keeping</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> |



**Northwest Intern** - The table below summarises the skills that the Northwest Intern will develop at Newhaven, Mornington and Wongalara.  
**Dates: March 2011 to September 2011**

| Objectives   | Tasks   | Learning outcomes   | Evaluation<br>(assessment of outcomes)  |
|--|---|---|---|
| Biological surveys in the arid zone<br><br>Newhaven<br>(March to early May)  | <ul style="list-style-type: none"> <li>• Tracking surveys at permanent sites</li> <li>• Carry out surveys at a series of permanent trapping sites</li> <li>• Fauna trapping</li> <li>• Fauna handling (including measuring, genetic sampling)</li> <li>• Vegetation sampling</li> <li>• Record keeping</li> <li>• Enter data from field work meticulously and as instructed</li> </ul>      | <ul style="list-style-type: none"> <li>• Use of tracks as a monitoring technique</li> <li>• Experience with different trapping techniques</li> <li>• Experience with animal handling</li> <li>• Vegetation sampling techniques</li> <li>• Experience with arid zone ecology</li> <li>• Team work</li> <li>• Value of careful records</li> </ul> | <ul style="list-style-type: none"> <li>• An understanding of conservation issues in arid Australia</li> <li>• Ability to learn a variety of monitoring techniques</li> <li>• Ability to handle animals</li> <li>• Knowledge of vegetation sampling techniques</li> <li>• Accurate record keeping and data entry</li> <li>• Ability to work independently and as part of team</li> </ul> |
| Fauna and flora survey<br><ul style="list-style-type: none"> <li>• to examine the effects of fire and large herbivores on biodiversity</li> </ul> Mornington and Marion Downs<br>(mid May to early July) | <ul style="list-style-type: none"> <li>• Carry out biodiversity surveys for small mammals, birds, and reptiles at a series of permanent trapping sites</li> <li>• Fauna trapping</li> <li>• Fauna handling (including measuring, genetic sampling)</li> <li>• Vegetation sampling</li> <li>• Record keeping</li> <li>• Enter data from field work meticulously and as instructed</li> </ul> | <ul style="list-style-type: none"> <li>• Experience with different trapping techniques</li> <li>• Experience with animal handling</li> <li>• Vegetation sampling techniques</li> <li>• Experience with northern Australian ecology</li> <li>• Team work</li> <li>• Value of careful records</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> </ul>                |



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|--|--|---|---|
| <p>Predator dynamics</p> <ul style="list-style-type: none"> <li>to estimate population density and distribution of dingoes</li> <li>to investigate the hunting behaviour of cats in relation to fire and grazing</li> </ul> <p>Mornington and Marion Downs (intermittently between other activities)</p> | <ul style="list-style-type: none"> <li>Set and check dingo and cat traps</li> <li>Conduct spotlighting for cats</li> <li>Handle dingoes and cats (including measuring, ear tagging)</li> <li>Radio-tracking of cats</li> <li>Set up camera traps, download photos and store data</li> <li>Track surveys</li> </ul>                                 | <ul style="list-style-type: none"> <li>Experience with different trapping techniques</li> <li>Experience with animal handling</li> <li>Experience with northern Australian ecology</li> <li>Team work</li> <li>Experience with camera and telemetry technology</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>Accurate record keeping and data entry</li> <li>Ability to work independently and as part of team</li> </ul>            |
| <p>Surveys to examine:</p> <ul style="list-style-type: none"> <li>The effect of fire on vegetation</li> <li>The interactions between Dingoes and cats and their effects on native fauna</li> </ul> <p>Wongalara (mid July to mid August)</p>   | <ul style="list-style-type: none"> <li>Carry out surveys at a series of permanent trapping sites</li> <li>Fauna trapping</li> <li>Fauna handling (including measuring, genetic sampling)</li> <li>Vegetation sampling</li> <li>Track surveys</li> <li>Record keeping</li> <li>Enter data from field work meticulously and as instructed</li> </ul> | <ul style="list-style-type: none"> <li>Experience with different trapping techniques</li> <li>Experience with animal handling</li> <li>Vegetation sampling techniques</li> <li>Track survey techniques</li> <li>Experience with northern Australian ecology</li> <li>Team work</li> <li>Value of careful records</li> </ul> | <ul style="list-style-type: none"> <li>An understanding of ecosystem functioning</li> <li>Proficiency in different capture and handling methods</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> </ul> |
| <p>Finch census</p> <ul style="list-style-type: none"> <li>Annual survey to measure abundance of finches</li> </ul> <p>Mornington (September)</p>  | <ul style="list-style-type: none"> <li>Participate in finch 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> </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> </ul>  |

