wildlife matters

australian wildlife conservancy

Summer 2011/12

Fighting back: restoring Australia's wildlife

Saving Australia's threatened wildlife

australian wildlife conservancy

Welcome to the Summer 2011/12 edition of *Wildlife Matters*. As you will read in the following pages, your generous support is helping AWC continue to deliver measurable success in restoring Australia's threatened wildlife and habitats.

Australia has one of the most unique faunas of any country on Earth. However, for many decades, Australia's wildlife has been in decline. A cocktail of cats, foxes, feral herbivores, weeds and altered fire regimes has degraded our landscapes and left us with an unwanted legacy of the highest mammal extinction rate in the world. The impacts have been widespread: Tim Flannery has described our inland national parks as resembling marsupial ghost towns.

This represents a significant devaluation of our globally significant natural capital. If we allowed our financial capital (GDP) to decline in this way, Governments would be voted out and the community would demand explanations, answers and action. At AWC, we believe in being just as pro-active in defence of our natural capital.

Fighting back means taking decisive, on-ground action to address fire, feral animals and weeds. AWC field staff are doing this across Australia, in places as remote as northern Cape York, the edge of Arnhem Land, the central Kimberley and the shores of Lake Eyre. These places represent the front line in our battle to protect and restore populations of our native wildlife. The Artesian Range, in the far north-western Kimberley, is the latest frontier for AWC. Our initial exploration of this remarkable place (see pages 4-5) confirms its value as a refuge for many species found nowhere else in Australia: this place, and its wildlife, must be defended.

Feral cats are probably the single greatest threat to Australia's wildlife. They kill several million native animals every day and are our greatest on-ground challenge. There is no easy way to eliminate feral cats at a landscape level. AWC is working with a range of partners, supported in part by the Australian Research Council, to devise a strategy that will minimise their impacts. The results to date suggest that the most effective strategy will involve managing ground cover – through careful fire management and the control of introduced herbivores – combined with reliance on Dingoes as a biological control agent, where practicable (see pages 6-7).

One of AWC's great strengths is our ability to operate at a regional level – working with a diverse group of stakeholders to jointly address a problem that affects everyone. Regular readers of *Wildlife Matters* will be familiar with EcoFire, a program of fire management that covers 4.5 million hectares and is delivered by AWC working in partnership with indigenous and pastoral landholders and government agencies. AWC is also delivering science programs at a regional level, such as our Kimberley-wide survey and population analysis for Purple-crowned Fairy-wrens (see pages 8-9).

Ultimately, our mission is about more than just slowing or halting the decline in our wildlife. Delivering truly effective conservation means *reversing* the declines and *restoring* populations. The most obvious examples of our success in rebuilding populations are within our feral predator-free areas. AWC is playing a pivotal role in preventing the extinction of species like the Bridled Nailtail Wallaby, the Greater Bilby, the Woylie, the Numbat and the Stick-nest Rat by protecting some of the largest remaining wild populations.

Thank you again for your contributions in 2011. Our success to date is a direct result of your generosity. Merry Christmas from all of us at AWC, and we look forward to your continued support in helping to restore Australia's threatened wildlife in 2012.

Yours sincerely

Atticus Fleming
Chief Executive

The AWC mission

The mission of Australian Wildlife Conservancy (AWC) is the effective conservation of all Australian animal species and the habitats in which they live. To achieve this mission, our actions are focused on:

- Establishing a network of sanctuaries which protect threatened wildlife and ecosystems: AWC now manages 22 sanctuaries covering over 2.6 million hectares (6.5 million acres).
- 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 endangered species.
- Conducting (either alone or in collaboration with other organisations) scientific research that will help address the key threats to our native wildlife.
- Hosting visitor programs at our sanctuaries for the purpose of education and promoting awareness of the plight of Australia's wildlife.

About AWC

- AWC is an independent, non-profit organisation based in Perth, Western Australia. Donations to AWC are tax deductible.
- Over the last five years, more than 90% of AWC's total expenditure was incurred on conservation programs, including land acquisition. Less than 10% was allocated to development (fundraising) and administration.

Cover Photo: Greater Stick-nest Rat at Mt Gibson Wildlife Sanctuary. (Photo: W. Lawler).

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Andijn and Gija crew protecting Kimberley country with AWC

Corey, James and Lindsay, part of the AWC Kimberley team *W.Lawler*

Over the past few years, AWC has been developing a program that sees a crew of people from the Tirralintji and Yulmbu Aboriginal communities working on a range of land management projects at Mornington and Marion Downs.

The crew ranges in size from three to eight people, depending on the activity, and is comprised of Andijn and Gija family members who are the traditional owners of the country stretching through Mornington, Marion Downs, Tableland and some adjacent areas. The crew is led by Lindsay Malay, with oversight from Sammy Walker, an Andijn elder who was born under a Ghost Gum growing at Mornington's sanctuary headquarters.

Here, we talk to Lindsay, James Malay (Lindsay's uncle) and Corey Malay (Lindsay's nephew), who are the core members of the work crew, about their roles with AWC.

How did you come to be working for AWC?
Lindsay: I started working for AWC six years ago; my first job was to help build this research centre here. Before Mornington I was mainly doing bits and pieces of stock work, where I could find it. But I wanted to bring my family back to our country, I wanted my kids to grow up here, and this job with AWC is letting me do that.

Corey: I got working with the EcoFire project, helping with burning, three years ago. Then I started helping with other work, fencing and building. It's hard to find work around, I didn't have much work before Mornington.

James: I was a ringer, in the NT, in Qld. I wanted to come home, see family and country, that's why I'm here.

What work do you do with AWC?
All three: Lots of things, fencing, fire work, building, concreting. We learn new skills. Like welding.

Corey: I've learnt to drive, and I'm learning about planning projects out.

Lindsay: Aerial burning was new for me. But biggest thing is getting more leadership, getting more responsibility. We've been doing more stuff on our own all the time, and that feels really good. Like that time in September when I led that team who was putting that fire out on Glenroy [neighbouring station].

Do you enjoy working on country?
James: When I'm in town I worry about the bush.

Lindsay: It's within us. Our family only really moved out of the bush in the 70s, when my grandma got sick. Then we were living in town, nothing to do. The only natural option for us, for working, was stock work, but we had to leave our family behind. But now this work with AWC is a good thing to learn, it's allowing us to be on our country with our family.

Corey: The country itself is special, it's home.

How has the country changed over the last 20 years?
Lindsay: My bigger brother has a picture of the camp here, when there was still stock, and it was all dirt, none of these bushes and grass that you can see now. All over, there's more food for animals now, it's rich in tucker, and there's plenty of water. I saw a heap of snappy gums growing up along the bank of the Traine River this week – that might be because of the fire work, I reckon.

Lindsay and Corey undertake a prescribed burn *P.Lawler*

Exploring the Artesian Range: a vital refuge for northern Australia's threatened mammals

Our recent biological survey in the Artesian Range has confirmed its extraordinary significance for the conservation of northern Australia's threatened mammals.

We have previously described the Artesian Range as resembling a "lost world" in the north Kimberley. Accessible only by helicopter, it is a world of rugged sandstone ranges dissected by deep gorges and bounded to the north by the spectacular Charnley River. The floor of the gorges and the escarpment walls are cloaked in rainforest and vine thickets. Higher up, the broken sandstone plateaux are decorated by tropical woodlands, heathlands, and palm forests. A network of creeks and streams emerge from the Range, cascading over waterfalls into rocky pools before eventually draining into the Charnley and Isdell Rivers only a short distance from the Kimberley coast.

Visiting the Artesian Range is also like stepping back in time. It is embedded in perhaps the only region in Australia that has not suffered any faunal extinctions since European settlement. For our ecologists, the Artesian Range offers a rare glimpse into northern Australia as it was before the impacts of feral animals, weeds and altered fire regimes began affecting the native biota.

Inventory and monitoring program begins

In November 2011, a team of AWC ecologists were dropped by helicopter into the Artesian Range to begin the systematic inventory and monitoring program at our 22nd sanctuary. Previously, incidental ground observations and some camera trapping had confirmed the presence of an extraordinary suite of threatened and endemic species including Monjon, Wyulda (Scaly-tailed Possum) and Kimberley Rock-rats. Black Grasswren had been sighted with relative ease. Unlike most of northern Australia, the Artesian Range was saturated with scats and other signs of mammals.

Unsurprisingly, our field ecologists approached this expedition with even more than the usual level of excitement, despite the promise of challenging conditions. We have no field base in the Artesian Range, so all of the equipment and supplies were slung in by helicopter. The temperature and humidity were very high; it rained most days.

Trapping equipment is slung into the remote Artesian Range J. Clarke

Wyulda (Scaly-tailed Possum) are found only in the north Kimberley H. McGregor

What did we find?

The objectives of this survey were to add to the inventory of fauna confirmed for the sanctuary and begin the installation of permanent trapping sites that allow us to monitor changes in ecological health, including the population of key species, especially in response to the management of key threats like fire. Four locations within the Artesian Range were surveyed during this trip. At each location, several trapping sites (each with an array of several different types of traps) were operated: overall, the team carried out around 2,000 trap nights and over 100 hours of spotlighting.

The survey produced many highlights, including multiple captures of Golden-backed Tree-rats at three out of the four locations. This spectacular native rodent, unique to Australia, with its flamboyant, tasselled tail, is a particularly exciting find as it has experienced one of the most dramatic range contractions since European settlement. Listed as a nationally threatened species, it used to occur widely across the northern part of Western Australia and the Northern Territory: there are even historical records of it living in buildings in Broome, attracted by the stored grains and flour. However, on mainland Australia, the Golden-backed Tree-rat is now confined to a small area of the north-west Kimberley.

Other mammalian treats included the Wyulda, a rock-dwelling possum with a peculiar naked, prehensile tail and the Monjon - the world's smallest rock-wallaby. Trapping rates for Northern Quoll (nationally Endangered) and the chunky Kimberley Rock-rat (another native rodent only found in the north-west Kimberley) were very high.

Highlights were not limited to mammals – the survey team confirmed the presence of five species of gecko unique to the north-west Kimberley, including the beautifully named Fringe-toed Velvet Gecko and the Western Giant Cave Gecko, a (relatively) huge gecko that uses its prehensile tail to help it leap between the rock faces on which it hunts.

The Charnley River carves its way through the Artesian Range *W. Lawler*

Why is the Artesian Range such an effective refuge?

The rugged, deeply dissected and rocky landscape of the Artesian Range means that few feral herbivores can penetrate, thus their effect on this landscape has been negligible. Inaccessibility has also limited ingress of weed species. However fire patterns in the north Kimberley have deteriorated over the past 15-20 years towards a higher incidence of extensive, intense fires; this change in fire patterns represents a real threat to this biodiversity hotspot. The physical features of the Artesian Range's landscape have afforded relative protection against fire compared to more open savannah habitats. However, without management, fire impacts are likely to penetrate even this refuge.

The north Kimberley is the last refuge for the Golden-backed Tree-rat *H. McGregor*

The Fringed-toed Velvet Gecko is endemic to the north-west Kimberley *N. Moir*

Future priorities

The November survey was the first in an ongoing program of surveys that will inform our species inventory and improve our understanding of species ecology and population trends. Targeted research on some of the key endemics will begin in 2012; this research will focus on gathering basic ecological information and examining the specific impacts of fire and feral cats on these poorly-known species. This science program would be greatly facilitated by the construction of a small, basic field station and the logistics of achieving this in such an inaccessible location are being considered. In the meantime, feral herbivore control along the boundaries of the sanctuary will help to keep their impacts within the Artesian Range to a minimum. In addition, a prescribed burn program (building on our existing EcoFire program) that introduces relatively small and low intensity fires during the late wet and early dry season will enhance the existing natural protection afforded by the rugged landscapes.

A Monjon, the world's smallest rock-wallaby *H. McGregor*

Developing strategies to reduce the impact of feral cats

Feral cats kill millions of native animals every day. There is currently no effective mechanism for eradicating or controlling feral cats at a landscape level. Australian Wildlife Conservancy and our partners are at the forefront of efforts to identify strategies that will minimise the impact of feral cats by improving the management of ground cover (reducing wildfires and overgrazing) and employing Dingoes as a biological control agent.

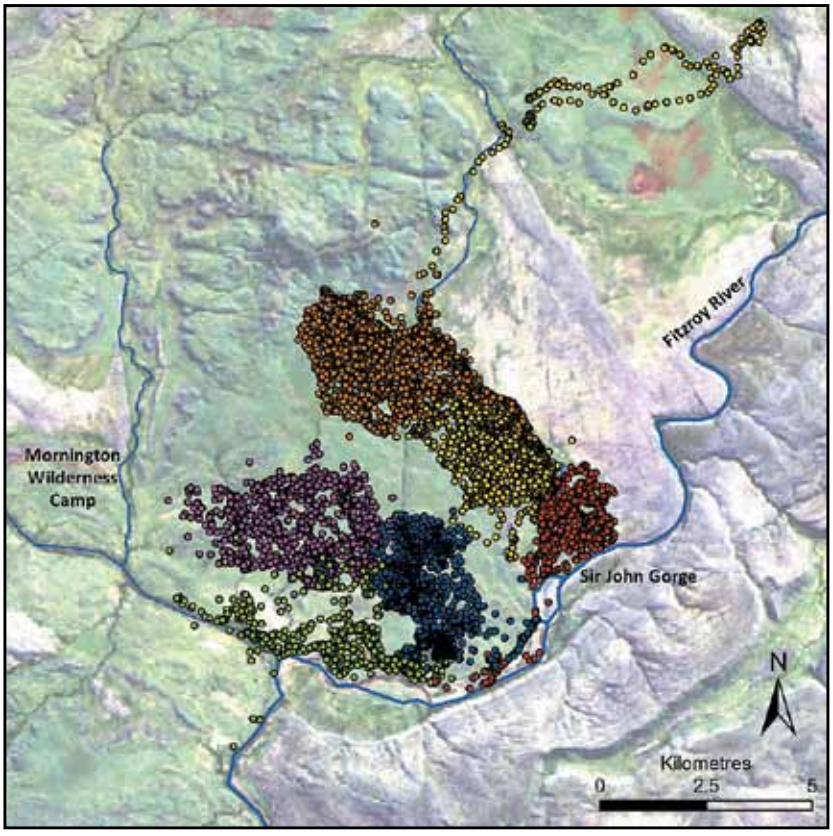
The feral cat research program at Mornington set a new record last month: the team has now collected high quality spatial data from more feral cats than any other project in Australian history. This has not been an easy achievement – feral cats are exceptionally difficult to catch (and catching them is a prerequisite to fitting the cats with tracking collars!). However, if we are to have any prospect of reducing the impacts that feral cats have on native wildlife, we must find out more about their behaviour and ecology.

Hugh McGregor (an AWC/Uni of Tasmania PhD student), assisted by Sally (the cat detection dog) and other AWC staff, has now radio-collared twenty feral cats spread across a wide range of habitats from spinifex hills to ephemeral wetlands. Most of the captured cats have been male; this bias might arise because males are less cautious and therefore more easily caught or it may reflect a true sex bias in the population. Each cat is occupying a territory with an area of about 3 kilometres across. The territories are contiguous, so males are obviously negotiating shared boundaries with each of their neighbours (see map). Often these boundaries follow landscape features like creeks and ridgelines.

The tracking devices attached to the cats are collecting GPS locations at frequent intervals and we can download these data remotely without re-capturing the cat. The information on the cats' spatial activities is therefore extremely fine-scale and high quality. In particular, these data are revealing how cats modify their hunting behaviour in response to wildfires: cats will travel reasonably large distances to hunt along the edges of these firescars. Clearly the "profit" from these events (via improved hunting efficiency) exceeds the risks of the long commutes through the territories of other cats. In contrast, cats do not react this way to less intense, prescribed fires, which leave much more vegetation unburnt within the firescar footprint. This critical difference suggests that an important strategy for reducing the impact of feral cats will be to manage fire (ie, to limit the incidence of extensive, intense fires) so that cats do not get the opportunity to mop up native wildlife left stranded without food or shelter after a wildfire.

Hugh will continue to collar new cats in the coming year to build on the data collected thus far. At the same time, he will also investigate the precise mechanism by which fires change the hunting behaviour of cats. By thinning vegetation in the ground layer, wildfires

Catching a feral cat *L.Brook*



Map shows the ranging patterns of six feral cats in the southern part of Mornington. GPS location fixes for each cat are shown with a dot; each cat has been given a different colour. Note that the territories are quite contiguous. One of the collared cats (shown with yellow symbols) makes a foray to the northeast to 'visit' a firescar caused by a wildfire late last year.

This research is investigating whether Dingoes affect cat behaviour and abundance *L.Brook*

presumably make it easier for cats to move around, to detect prey and to capture them. Using detailed GPS data and ground layer measurements, cats' preferences will be made clear. This may also provide insights into the effects of introduced herbivores on cat predation as grazing also reduces the ground layer.

In a closely-related project, Leila Brook (a PhD student enrolled at James Cook Uni) has been attaching GPS collars to Dingoes living in the same area as Hugh's cats, to see whether and how cats react to the presence of Dingoes. Dingoes do harass cats and sometimes kill them outright. If Dingoes keep up this pressure, cats will need to modify their behaviour to avoid Dingoes, for example by hunting in suboptimal areas or at suboptimal times of the day (when Dingoes are less active). In either case, the density of cats will be reduced. With the first round of data collected (involving ten Dingoes), Leila can already see that Dingoes and cats do use the landscape differently: cats move over their territories quite evenly, whereas Dingo territories include large areas that they visit rarely. The next session of collaring will take place in April and May, after which Leila should have enough data to describe more precisely how Dingoes affect cats and therefore whether they are an effective biological control for feral cats.

The next sub-project in the feral cat research program will take place at our Artesian Range Wildlife Sanctuary. The biodiversity values of the Artesian Range are extremely high: it is home to a suite of native mammal species that are either unique to the north-west Kimberley or have declined elsewhere in northern Australia. In other words, it is a refuge for many small mammal species which have disappeared across other parts of northern Australia due to a combination of feral cats, feral herbivores and altered fire regimes. We need to understand why small mammals have survived in the Artesian Range – are cats having less of an impact and, if so, why? Most importantly, we need to ensure we understand how cats and other threatening processes interact in the Artesian Range so that we can implement pre-emptive measures to prevent the declines that have occurred elsewhere.

The Artesian Range research will involve a detailed examination of the ecology of a few species (eg, Golden-backed Tree-rat, Northern Quoll, Wyulda) in order to find out what impacts fire and feral cats are having on these animals. The results should help us understand why a species like the Golden-backed Tree-rat has persisted in the Artesian Range despite disappearing from the rest of its range in Western Australia and the Northern Territory (including large protected areas like Kakadu National Park). The project will be carried out over three years by a newly recruited PhD student. Rosie Hohnen recently completed an Internship with AWC, and during that time accumulated much of the remote field experience that she will need to accomplish this challenging project.

The feral cat research program is carried out with our partners University of Tasmania, Charles Darwin University, the WA, NT and Qld governments, and CSIRO; it is partly funded by the Australian Research Council.

Releasing a radio-collared feral cat *L.Brook*

Kimberley initiative maps strategy for Purple-crowned Fairy-wren

PhD student, Anja Skroblin, mist netting K.Hines

Male Purple-crowned Fairy-wren A.Skroblin

AWC has successfully completed a major, Kimberley-wide project identifying the distribution and population size of an iconic, nationally threatened bird: the Purple-crowned Fairy-wren. In addition to highlighting our leadership role in relation to the Kimberley's wildlife, the project addresses a key issue in conservation biology: the delivery of effective conservation for species that occur in small, isolated populations.

The Purple-crowned Fairy-wren *(Malurus coronatus)* is a small insectivorous bird with very picky habitat preferences: it lives only in lush, riparian vegetation that grows along the waterways of northern Australia's tropical savannas. This sensitive habitat is easily damaged by frequent intense fires, introduced herbivores, and weeds. The Purple-crowned Fairy-wren has disappeared from river stretches with the longest history of such degradation. As a result, the western sub-species of this wren is listed as nationally threatened.

The specialised habitat requirements of the Purple-crowned Fairy-wren – and the fact that this habitat has been degraded and fragmented over recent decades – means that the species occurs in small, isolated populations which are scattered across the landscape in patches of suitable habitat. Wrens that want to disperse between these patches need to fly the gauntlet over the intervening 'hostile' country. The impact of further habitat loss or degradation could be especially profound for the species, significantly increasing the risk of extinction for sub-populations by reducing the size and quality of remaining habitat patches and by increasing the distance between viable patches.

Given the precarious status of the Kimberley's Purple-crowned Fairy-wren, and the poor information on its distribution and trends, we designed a research project that aimed to:

- Describe the current distribution and population size of the species.
- Describe its habitat requirements, and the threats to the quality of its habitat.
- Use population genetic techniques to investigate its dispersal ability and identify the main sub-populations.
- Predict the impacts of future habitat loss or degradation on the persistence of this species in the Kimberley.

Beginning in 2007, Anja Skroblin was recruited by AWC and embarked on this challenging four-year study for her PhD research at the Australian National University. She completed an extraordinarily extensive series of surveys for the Fairy-wrens and their habitat along over 4,000 km of Kimberley waterways. Much of this work was carried out by helicopter because of the limited road access in the region. Anja collected volumes of data on the presence/absence of birds and habitat quality, as well as a bank of genetic samples from the birds themselves.

Anja detected the species on six of the 14 surveyed Kimberley catchments and identified areas where declines have occurred by comparing surveys with historical records (see map). She found that the Purple-crowned Fairy-wren had disappeared from sections of river where the understorey has been highly degraded by overstocking and intense fires, indicating that the species will disappear from other waterways if their habitat quality diminishes in the future. The persistence of the species on two catchments (Isdell and Pentecost) is precarious because of the limited habitat available on those rivers and thus the small population sizes.

Anja found that less than 10% of the surveyed waterways contained habitat that was even remotely suitable for

Purple-crowned Fairy-wrens need healthy riparian (creek-side) habitat, like this stretch of Annie Creek on Mornington *A.Skroblin*

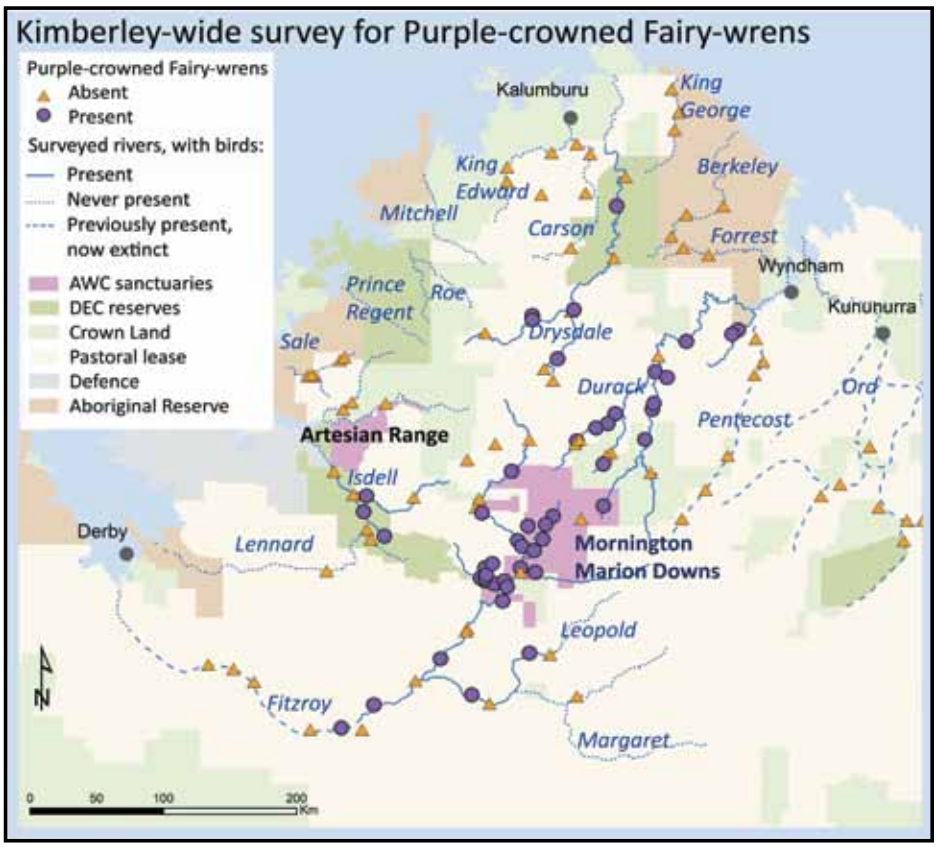
Purple-crowned Fairy-wrens and that this was distributed as 533 discrete patches along those waterways. Most of this potentially suitable habitat occurs on pastoral land; only a small amount of habitat is within conservation areas and the only reserve to protect a sizeable proportion of suitable habitat is AWC's Mornington Wildlife Sanctuary. Moreover, Purple-crowned Fairy-wrens were generally only present in habitat of the highest quality (dense shrubs and Pandanus for shelter and nesting, with a good overstorey of trees to provide refuge during floods).

Anja estimates that the Kimberley rivers she surveyed support between 2,834 and 4,878 individuals. This is a relatively low number for a species with a fragmented distribution. While the Purple-crowned Fairy-wren is capable of some long-distance dispersal along un-vegetated river sections, Anja found that the bird was more likely to occur on rivers with a large cumulative length of high quality habitat. Moreover, the genetic analysis showed that there are limits to the species dispersal abilities: the wren does not readily disperse between catchments or between patches of quality habitat that are isolated by long stretches of inhospitable waterway. This means that future loss or degradation of riparian habitat may split populations of Purple-crowned Fairy-wrens into two or more discrete sub-populations, which may then be at higher risk of extinction due to their small size.

Management implications

This four year study of Purple-crowned Fairy-wrens is significant because it provides an accurate snapshot of the distribution and abundance of a threatened species (and its habitat) that can be used as a benchmark for identifying future trends. The genetic analysis showed that the bird's dispersal abilities are limited. This means that the quality of riparian habitat patches along entire catchments must be maintained in order to retain connectivity and thus facilitate dispersal and prevent population subdivision. Management actions (preserving riparian habitat) need to occur on a catchment basis. Focusing on national parks will not be sufficient as the majority of the Kimberley's Purple-crowned Fairy-wrens are found on pastoral land and AWC land.

At a broader level, the long term persistence of the Purple-crowned Fairy-wren requires a landscape-scale approach to the threats of altered fire patterns, introduced herbivores and weeds. Regional initiatives like EcoFire, which is successfully reducing the incidence of extensive, intense fires across 4.5 million hectares of the central and north Kimberley, are paradoxically the best tonic for a tiny bird that flits within the small and scattered patches of lush vegetation lining the Kimberley's waterways. AWC is proud to be playing a leading role in both the science (this survey) and the on-ground delivery of land management (EcoFire) that is required to ensure the survival of this beautiful bird.



Female Purple-crowned Fairy-wren *N.Rains*

Research partners: ANU, WA DEC, Max-Planck and landholders.

Wongalara: reversing the small mammal decline in northern Australia

Wongalara Wildlife Sanctuary, on the edge of Arnhem Land, is playing an important role in efforts to understand and reverse the catastrophic decline of small mammals across northern Australia. As part of our Northern Mammal Recovery Project, two key initiatives are being implemented at Wongalara: (a) an experimental reintroduction of Pale Field Rats to measure the impact of cats; and (b) establishing the largest feral herbivore-free area on mainland Australia.

Measuring the impact of feral cats: the experimental reintroduction of Pale Field Rats

The Pale Field Rat is a small native rodent that has declined significantly across northern Australia. In order to quantify the role of cats in this decline, AWC has been working with our partners - the Northern Territory Government, the University of Tasmania and Charles Darwin University – to translocate Pale Field Rats to Wongalara. The translocation is a significant step toward restoring populations of this species across its range. However, it also forms part of an important research project: some of the Pale Field Rats have been released into a cat-free enclosure, while some Rats are being released into an enclosure that does not prevent access by feral cats.

As a first step in this project, 20 Pale Field Rats were captured earlier this year on Quoin Island off the coast of the Northern Territory and transported to a temporary home at the Territory Wildlife Park. The primary purpose of this stop-over was to check for disease. During their stay, the Rats produced about 40 offspring.

By October, the challenging task of constructing the first set of enclosures was complete. The cat-proof enclosure is surrounded by a six foot high fence (see photo), while the other enclosure is surrounded by a smaller fence that prevents the Rats escaping but is not cat-proof. Thirty-one Pale Field Rats were then released: 10 Rats from each enclosure were fitted with radio collars so that their survival and movement patterns could be monitored. In the six weeks since release, three of the 20 collared Rats have died (but none to cat predation). Fortnightly trapping has shown that the surviving Rats have settled in well and are breeding. Over the next 12 months, we expect this initiative to provide vital information about the role of cats in suppressing small mammal numbers. Camera traps monitoring the perimeter of the enclosures have already detected cats prowling the fencelines.

Feral cat-proof fence at Wongalara *R.Beament*

Australia's largest feral herbivore-free area

At Wongalara, AWC is also establishing the largest feral herbivore-free area on mainland Australia. The fenced area will have a perimeter of 168 kilometres and contain 1,000 km^2 of diverse habitats. New fencelines have been graded for parts of the route that previously had no vehicle access, while other sections of existing fence have been meticulously patched up. Two fauna surveys (2010 and 2011) have been carried out at a network of 42 permanent monitoring sites that have been established inside and outside the planned fenced area in order to measure the species richness and relative abundance of mammals and reptiles prior to removal of feral herbivores. The 'inside-outside' sites are carefully matched for habitat. Changes in vegetation and ground characteristics over time and between the planned stocking treatments are also being monitored. These surveys will be repeated every year to measure the effect of feral herbivore removal.

A feral cat patrolling outside the fence

Pale Field Rat with radio collar

Newhaven: responding to the wildfire challenge

Nyirripi and Yuendumu Rangers during training at Newhaven *M. Harris*

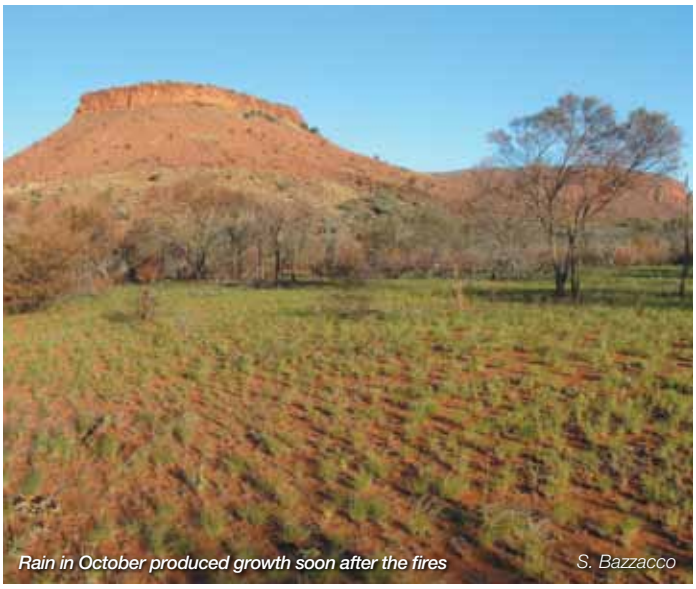
AWC and our partners have undertaken a major fire suppression operation to minimise the impact on Newhaven Wildlife Sanctuary from devastating wildfires sweeping across central Australia. Our latest initiative involves further collaboration with indigenous rangers from Nyirripi and Yuendumu.

Extensive wildfires have been occurring throughout central Australia, fuelled by lush growth following high rainfall over the past year. In May and June, we prepared for this heightened fire risk at Newhaven by carrying out prescribed burns from the ground and helicopter. Our prescribed burning program was more extensive than in any previous year.

The first test of our program occurred in mid-August when a massive wildfire swept towards Newhaven and threatened to burn across the property. AWC staff (from Newhaven, Wongalara, Mornington and Pungalina) and volunteers, supported by NT Bushfires Council, NT Parks and Wildlife, and Indigenous Rangers from Nyirripi and Yuendumu communities, were mobilised to protect the property. This "joint forces" team spent three weeks fighting the fire, with additional graded breaks and back burns from these lines supplementing our earlier prescribed burns.

We had reasonable success in limiting the impact of these regional wildfires on Newhaven. However, lightning strikes within Newhaven brought further fires in October. When the smoke had cleared, the total proportion of Newhaven that has burnt in wildfires this year is 40%. In the past 40 years, there have been only two episodes of comparably high rainfall events in the centre. Both episodes were followed by extensive fires across inland Australia; on Newhaven, 70% of the property burnt after high rainfall in the 1970s and then 74% burnt in the early 2000s before the transfer to AWC. This year, without the earlier prescribed burning program and the wildfire suppression efforts, we estimate that fires would have affected a similarly high proportion of the property. While we are pleased to have limited the impact of wildfires to a much lower level than in previous comparable years, the overall proportion of the property burnt this year is higher than our target, and our prescribed burning program will be adjusted accordingly.

Fortunately, the prescribed burns and the August wildfire were relatively patchy and of low intensity. In addition, further rains immediately after the October fires resulted in an instant flush of green growth on burnt areas. Most importantly, the wildfires were largely prevented from entering the semi-saline spinifex sandplain in the centre of the sanctuary, which is key habitat for threatened species including the Great Desert Skink and the Mulgara. These areas are now the focus of additional management actions over summer. One of the tasks has been to grade existing and new internal tracks that can be used as defensive fire fighting lines, if required. This has been carried out by AWC staff and a team of Yuendumu and Nyirripi Rangers, funded by the NT NRM Board. Over a two week period, seven Rangers were trained in grader operation and road construction by an accredited trainer, providing them with skills in fire and soil erosion management. In return, Newhaven's tracks were given a face-lift and habitat for species like the Mulgara has been given additional security.



Rain in October produced growth soon after the fires *S. Bazzacco*

Scotia: new horizons for the Bridled Nailtail Wallaby

Scotia Wildlife Sanctuary is home to more than 1,500 Bridled Nailtail Wallabies, representing 90% of the remaining population of this nationally threatened species. Our next challenge is to establish a healthy population "beyond the fence" at Scotia.

The vital role of feral proof fencing

The largest feral predator-free area on mainland Australia is found at Scotia Wildlife Sanctuary. Around 8,000 hectares of mallee wilderness is surrounded by a 6 foot high electrified fence that excludes all foxes, cats, rabbits, goats and other feral animals. This feral-free area has been critical in ensuring the survival and recovery of the Bridled Nailtail Wallaby and other species including Greater Bilbies, Boodies and Numbats.

Secure behind this feral barrier, the population of Bridled Nailtail Wallabies at Scotia has grown to more than 1,500 animals. It highlights the vital role of fenced areas: there are only three other wild populations of Bridled Nailtail Wallabies and all of these (unfenced) populations are precarious, with only around 100 individuals in each population.

The next phase: beyond the feral proof fence

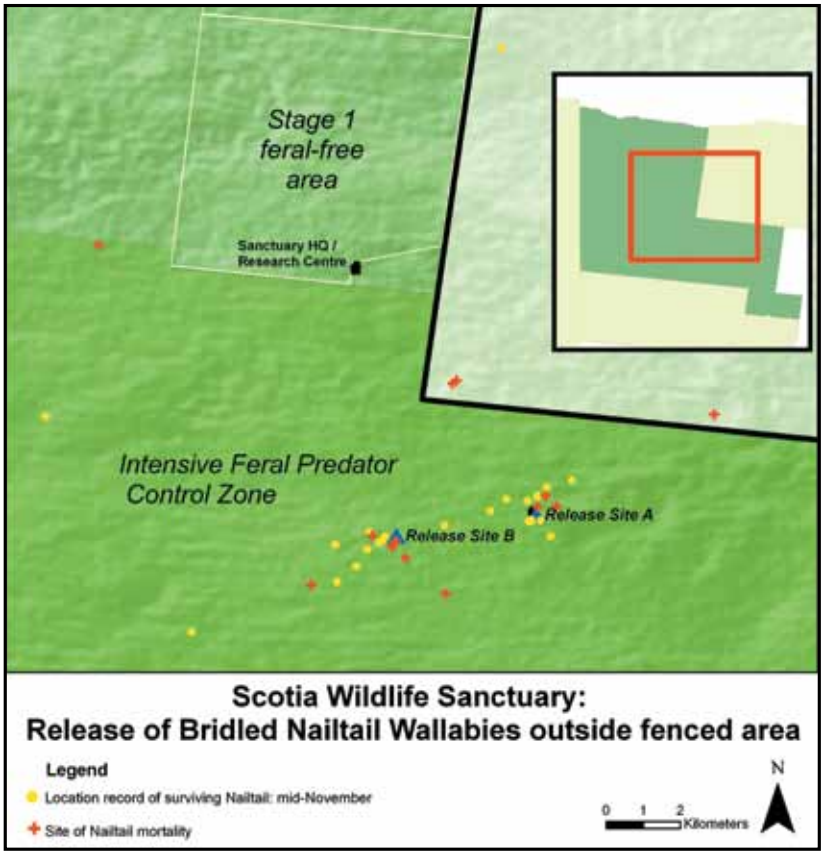
Having helped save the species from extinction, AWC's medium-term goal is to establish a Bridled Nailtail Wallaby population outside the fenced area at Scotia (which is 64,653 hectares in total). This will result in a dramatic further increase in the population and, most importantly, will demonstrate a strategy for the successful return of the species to large parts of its former range.

However, across Australia, almost all reintroductions or translocations to mainland areas which are not protected by a feral proof fence have failed. In other words, the process of releasing Bridled Nailtail Wallabies outside the fenced area at Scotia, if it is to be successful, needs refined strategies for controlling the major threat to the wallabies – introduced foxes. A combination of traditional poison baits, interspersed with a dense array of a new type of poison delivery device called M44s, is achieving the required fox knock-down.

The results so far ...

Our Winter 2011 edition of *Wildlife Matters* summarised the results of an initial trial release of male Bridled Nailtail Wallabies outside the fenced area. In August 2011, we followed up with a larger release of 60 animals (40 male; 20 female). The release occurred into an unfenced section of Scotia which has been the subject of intensive fox control (see map). Forty animals were fitted with radio collars. Our field ecologists have been following these animals every day for the last three months by foot, from vehicles, using three 10 metre high towers and by aerial surveillance from small aircraft. The presence of female wallabies has reduced the tendency of males to wander long distances, meaning that fewer animals left the relative safety of the intensive fox control zone. By mid-November, 26 of the 40 radio-collared wallabies had survived: this exceeded our criteria for success (50% survivorship after 3 months). Two wallabies had been taken by Wedge-tailed Eagles while fox predation has been confirmed for three animals. The cause of death was unknown in six animals.

10m high towers and aerial surveillance were used to track the Bridled Nailtail Wallabies *M.Steinhart*




Bridled Nailtail Wallaby

What have we learnt?

- Feral proof fencing is essential if we are to prevent the extinction of species like the Bridled Nailtail Wallaby, the Numbat, the Woylie and many others. While there is a substantial up-front cost of establishing these fences, they deliver exceptional ecological returns (population increases) with a very high level of certainty and relatively low annual maintenance costs.
- Restoring species across the broader landscape (beyond the fences) involves a degree of risk: identifying a way to manage and reduce this risk is still a "work in progress" for conservation agencies.
- At Scotia, early results suggest we have identified a strategy which will suppress fox numbers to the point where Bridled Nailtail Wallabies can survive beyond the fence. However, we need to measure the long-term investment required to maintain effective fox control.
- We also need to monitor whether natural selection within the Bridled Nailtail Wallaby population will favour behavioural traits that reduce the risk of fox predation: i.e., will the released population become more "fox-wary" over time.
- We have refined our protocols to maximise the likelihood of success in the critical first three months post-release: for example, releasing females will stop the males travelling too far.

Shaping our priorities

At a broader level, the Bridled Nailtail Wallaby project at Scotia will shape AWC's future priorities in several ways. Firstly, it reinforces the need for additional fenced areas, such as our proposed feral-free area at Mt Gibson. Secondly, it brings us a step closer to assessing the viability of releasing Bridled Nailtail Wallabies at Bowra (in southern Queensland), although that remains a medium-term (5 year) objective. Finally, it raises the prospect of future releases of additional species, such as the Greater Bilby, beyond the fence at Scotia.

STOP PRESS
Numbats airlifted to Scotia

As this edition of *Wildlife Matters* goes to print, 14 young adult Numbats are being airlifted from Perth Zoo to AWC's Scotia Wildlife Sanctuary in western NSW. Perth Zoo has the only captive breeding centre for Numbats in Australia. After flying commercially from Perth to Adelaide, the Numbats will board a charter flight with AWC Regional Ecologist, Matt Hayward, for the flight direct to Scotia. Currently listed as Vulnerable, most populations of Numbats are in decline as a result of cat and fox predation and there is a proposal to list the species as Critically Endangered. However, the Scotia population is increasing, providing some rare good news for the species. The Perth Zoo Numbats will be released into Stage 2 of Scotia's feral predator-free area. The translocation is also supported by the Western Australian Department of Environment and Conservation and the Numbat Recovery Team.


Numbat *K.Nissan*

Biological surveys across Australia

In 2011, AWC's field ecologists – supported by a band of dedicated interns and volunteers – have undertaken around 90,000 trap nights across Australia. These biological surveys play a vitally important role in our inventory program, our research projects and in measuring the ecological health of our properties.

Fauna surveys

Large-scale fauna surveys have been carried out at most AWC sanctuaries since the Winter 2011 edition of *Wildlife Matters*. At **Mt Gibson,** a network of permanent trapping sites was set up both inside and outside the proposed feral-free fenced area. The month-long survey in October provided the first set of baseline data that will, in time, allow us to assess the impacts of removing feral predators, and restoring native mammals, on a range of other native reptiles, mammals and plants. A similarly designed and extensive set of monitoring sites in the fenced and unfenced areas of **Scotia** was surveyed in November. The effects of high rainfall in the past 18 months were evident, with several unusual species recorded including Fat-tailed Dunnarts and Yellow-billed Spoonbills, the latter being a rare visitor to the dry mallee. Rain was also a significant factor influencing the results of the fauna survey at **Kalamurina**, on the northern shore of Lake Eyre: captures were six times greater than those of the 2009 survey! Long-haired Rats abounded, although their numbers dropped off with increasing distance from water. Other notable mammals included Crest-tailed Mulgara, Kultarr, and Water Rat; the latter represents a reasonable range extension. Massive groups of around 1,500 Flock Bronzewings, an eruptive and nomadic bird species, darkened the desert skies.

An early wet season survey of the coastal habitats, including the mangroves, at **Pungalina-Seven Emu** revealed 13 new animal and 6 new plant species for the inventory, even though the ecologists had to cut the survey short because of heavy rain. The team also carried out the first survey of marine turtle nests and re-censused the maternity cave of Ghost Bats.

The focus of the **Brooklyn** survey was to extend attention to new sites in some of the rocky hills, and more broadly to focus on bats and frogs, groups that require dedicated survey techniques.

The effort was rewarded by the addition of four bat species to the sanctuary inventory and reconfirmation of the presence of two threatened frog species. A survey of rainforest patches in **Mt Zero-Taravale's** Star Valley added three new species to the inventory and an extensive camera trap survey along the edges of the rainforest adds to our ongoing monitoring of that ecosystem. The **Buckaringa** survey returned a similar species list compared with last year, with the addition of one new reptile species, the Tree Skink.

As part of the Northern Mammal Research Program, surveys of permanent monitoring sites inside and outside existing (or planned) destocked areas were carried out at **Wongalara, Mornington, Marion Downs** and **Piccaninny Plains.**

Birds Queensland has been contributing to the survey effort at **Bowra** by carrying out monthly bird surveys at fixed sites throughout the property. To date, the volunteer birders have recorded 183 of the 215 species that have ever been seen on Bowra. Over time, this detailed dataset will provide invaluable information on season and inter-annual trends in the avifauna, as well as responses to management actions.

As well as surveying native fauna, the science team has carried out a number of surveys specifically designed to monitor the abundance of feral animals. Track and camera trap surveys for foxes and feral cats have been carried out at Bowra, Scotia, Kalamurina, Mornington, Wongalara, Newhaven, Mt Gibson, Paruna, Karakamia, Brooklyn and Mt Zero-Taravale. Aerial surveys for feral herbivores (buffalo, pigs, donkeys, horses, cattle) were carried out at Pungalina-Seven Emu and Wongalara. This information is being used to identify priority actions for feral animal control at each property in 2012.

Waterbirds like this Royal Spoonbill flocked to Kalamurina with the arrival of floodwaters *T.Fleming*

A nationally endangered species, the Common Mistfrog *R. Jensen*

Western Barred Bandicoots, Faure Island *G. Barnett*

Reintroduced populations

Translocated species are monitored regularly at AWC sanctuaries involved in the reintroduction program. The signs are positive, with all populations either stable or increasing. We estimate that the Boodies at **Yookamurra** have increased to around 550, whilst the Woylies and Bilbies remain stable. Bridled Nailtail Wallabies, Woylies and Boodies have all increased at **Scotia**. The biannual monitoring survey at **Faure Island** has just been completed: the massive trap success indicates stable or increasing Boodie, Western Barred Bandicoot and Shark Bay Mice populations. Five more Banded Hare-wallabies will be translocated to Faure in December, bringing the total number translocated up to 57. The last translocation of Common Brushtail Possums to **Paruna** took place six months ago and the relatively high survivorship of collared animals indicates that the translocation was a success. The most recent spotlighting surveys at **Karakamia** revealed that the Tammar Wallabies and Brushtail Possums are increasing, whilst Quenda and Woylies remain stable.

At **North Head**, 50 native Bush Rats were reintroduced after dozens of introduced black rats had been removed during an extensive trapping campaign. The Bush Rats are surveyed regularly and 12 of the Bush Rats have radio collars, allowing detailed observation of their movements and survivorship. The Bush Rats are staying near their release sites and surviving. Black rats are beginning to re-invade the area. The next few months are critical as we wait, and monitor, whether the Bush Rats can successfully keep the feral intruders at bay.

Monitoring vegetation restoration

An experimental attempt to restore areas of wet sclerophyll forest at **Mt Zero-Taravale** that have been invaded by rainforest, using a combination of hand clearing (of invasive undergrowth species) followed by burning, was extended to another three hectares with the help of the Girrigun Rangers.

The initial 40 ha revegetation trial at **Dakalanta**, using locally sourced seed to restore cleared paddocks to native bushland, has proven so successful that a second area is being earmarked for planting. This project is being carried out as part of the WildEyre initiative.

Girrigun Rangers working with AWC at Mt-Zero Taravale *J. Kanowski*

Torrential rain during our biological survey, Pungalina-Seven Emu *J.Heathcote*

Ecosystem engineers: how reintroducing native mammals will boost landscape health

AWC scientists work in partnership with a range of research organisations to address the key issues affecting biodiversity conservation across Australia. At Scotia Wildlife Sanctuary, we are collaborating with the University of NSW and the NSW Office of Environment and Heritage (OEH) to better understand the vital ecosystem role of small native mammals and their digging. Dr David Eldridge (OEH) describes the project and explains why restoring small mammal populations will boost landscape health and productivity.

Two hundred years ago, Australia's semi-arid woodlands were very different from what they are today. The vegetation was more diverse, there were more grasses and a distinctive feature of the soil surface was the large number of small depressions dug by native animals. Many of the animals that dug these pits and depressions while foraging for food are now largely absent from much of continental Australia.

Prior to European settlement, Bilbies, Bettongs and other soil foraging mammals occurred over large areas of the continent. Since settlement, however, these animals have all but disappeared due to predation by foxes and cats, competition from rabbits, and removal of grasses by domestic livestock. Not only have we lost these unique animals, but we have also lost those important ecosystem services that they provided. A partnership between Australian Wildlife Conservancy, the University of NSW and the NSW Office of Environment and Heritage (OEH) is helping to understand exactly why the reintroduction of these soil-disturbing animals is critically important for maintaining healthy, productive ecosystems. The story starts with two key elements of semi-arid systems that are intimately linked: leaf litter production and foraging pits.

The decomposition of litter is an important process in arid and semi-arid environments. Australian soils are extremely low in carbon, an important soil building block. Carbon comes mainly from decaying organic matter. When litter remains on the soil surface it is mainly broken down slowly by ultraviolet light, wind and water, and carbon is returned to the atmosphere. Litter that comes into contact with the soil and therefore soil microbes, however, is broken down more rapidly, and the carbon finds its way into the soil organic pool and becomes available for uptake by plants. This litter, and the carbon and nitrogen that it produces, are critically important for the health of semi-arid ecosystems.

Since 2008, ecologists from OEH, the University of NSW and AWC have been measuring soil turnover by native and feral animals at Scotia and assessing their capacity to capture litter. Bilbies and Bettongs are prolific diggers, turning over each year about eight tonnes of soil per hectare compared with about two tonnes per hectare for Echidnas. These animals do not forage randomly, but concentrate their digging under the canopies of trees and shrubs where there are more resources. It is also under these canopies where most of the litter is found. While rabbits also dig foraging pits, they move substantially less soil than native animals, under one tonne per hectare per year, and the

AWC has reintroduced Burrowing Bettongs at Scotia, Yookamurra and Faure Island *W.Lawler*

pits are typically shallower and therefore less effective traps for litter and seed.

PhD student Samantha Travers and AWC Ecologist Jennifer Cathcart have been tracking the rate of litter production from trees and shrubs at Scotia for the past three years. Their work has shown that litter fall is greatest on the dunes, and increases with increasing rainfall. They have also shown that, apart from trees and shrubs, foraging pits are substantial traps for litter in these semi-arid woodlands.

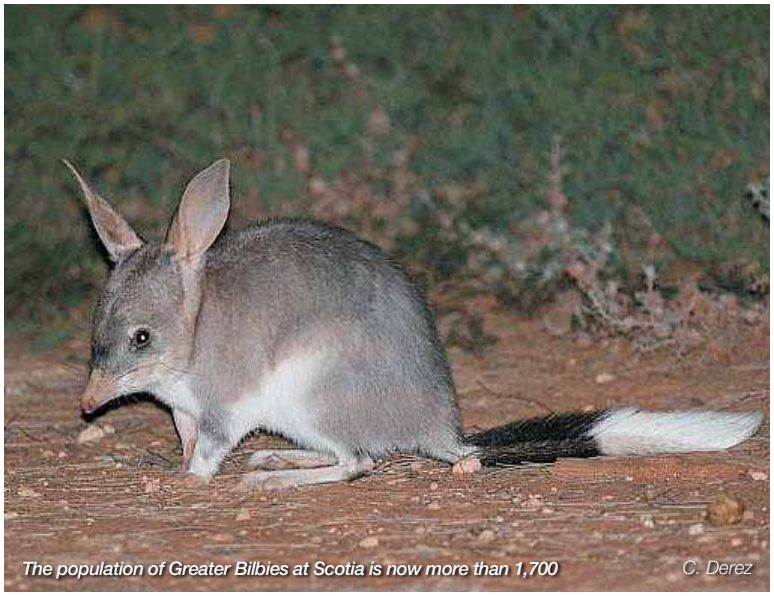
Samantha placed small bags of litter into the foraging pits of Echidnas, Bilbies and rabbits to see whether they decomposed more quickly in the pits or on the surface. For native animals, decomposition was greater in the pits, but for the European rabbit, there was less decomposition in the pits and more on the surface (rabbits were measured at pastoral sites adjacent to Scotia). Samantha's results suggest that it is something about the shape of foraging pits of native animals that makes them a better environment for decomposition. She also found that termites and fungi were essential for breaking down organic matter. When she treated litter with a termaticide and fungicide to eliminate termites and fungi, decomposition was very low, indicating their importance in the decomposition process. Termites and fungi are also important food resources for soil foraging animals such as Bettongs and Numbats.

Microbes are important for the breakdown of litter and the research team believes that the pits of different animals might support a different suite of microbes. Prof Brett Neilan and PhD student Ivan Wong from the University of NSW have been looking at the community of microbes in different pits using modern metagenomic approaches. Although the data are preliminary, the team has detected substantial differences in the microbial communities in the pits of rabbits compared with those of Bilbies and Bettongs. They also found that newly excavated pits take only a few months to develop a microbial community that is very similar to that of old decomposing foraging pits.

The research program based at Scotia is now building up a clear picture of the ecosystem benefits of reintroducing native soil-disturbing animals. Bilbies and Bettongs are digging more pits, moving more soil, and trapping more litter, which is decomposing more rapidly compared with the activities of the European rabbit. Furthermore, research by AWC Ecologist Dr Alex James has shown that Bilby pits contain more carbon and nitrogen, and also more native plant seeds, compared with pits dug by rabbits. This is probably because the shape of Bilby and Bettong pits makes it more difficult for ants to remove seeds compared with the shallow pits of rabbits; an observation confirmed during a study on seed foraging by ants carried out by students at the University of NSW.

Consistent with its mission of delivering "effective conservation" for Australia's wildlife, the reintroduction of threatened and declining mammals into their former habitats is a key strategy for AWC. Our collaborative research program at Scotia is helping to describe and quantify how this strategy will, by returning small digging mammals, also create more diverse and productive ecosystems with healthier soils.

Pits dug by Burrowing Bettongs in mallee woodland at Scotia *A. James*



The population of Greater Bilbies at Scotia is now more than 1,700 *C. Derez*

Plant germinating in the Bilby foraging pit at Arid Recovery, South Australia *D. Eldridge*

James Val measuring the volume of foraging pits at Scotia *E. Roger*

Stick-nest Rats thriving at Mt Gibson

The Greater Stick-nest Rat population at Mt Gibson Wildlife Sanctuary is thriving. Translocated from an island off the South Australian coast in May 2011, it is the only population of this nationally threatened species on mainland Western Australia.

As reported in the Winter 2011 edition of *Wildlife Matters*, 39 Greater Stick-nest Rats were originally airlifted from the Franklin Islands and released into a purpose built 5 hectare feral-free area at Mt Gibson. Six months after that release, our trapping surveys show at least 70% of the translocated individuals are alive and well and they have been joined by at least 21 new recruits. All animals are in great condition, with many adult females lactating, indicating plenty of additional recruits are on the way. Nest-building activity has been prolific, with more than 20 nests now recorded and nests appearing to 'expand' in size as every night passes. AWC ecologists have also observed the rats feeding on native vegetation within the enclosure, meaning we can reduce the supplementary feeding program in the near future.

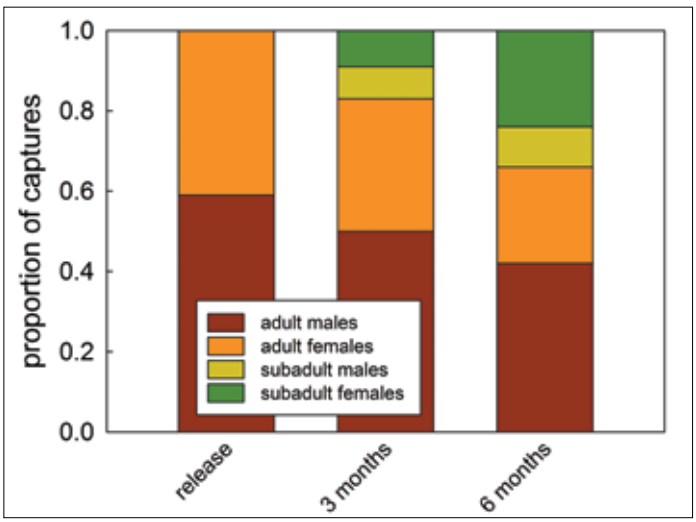
Cutting edge monitoring equipment, including an automated scale and PIT tag reader, are enabling us to record individuals moving into and out of nest sites remotely and to weigh animals that are moving into and out of the temporary feed stations. The equipment will be especially important when we begin reducing the level of supplementary feeding as it will allow us to determine daily body weight changes in most individuals without having to handle the animals. The automated PIT tag reader will also allow us to determine if multiple individuals are sharing the same nest site, thus giving us some insight to the social system of this species.

One of the next steps is to initiate some important ecological research on the population. For example, feeding experiments will be carried out to determine food preferences. Dubbed 'cafeteria trials', the rats will be offered a smorgasbord of locally available native plants, with their selections carefully measured. In addition to providing information on the ecological requirements of the species, the results will help identify the best Stick-nest Rat habitat within Mt Gibson: in turn, this will guide the selection of the site for a much larger feral-free fenced area on the property. Our objective is to establish a feral-free area at Mt Gibson of at least 8,000 hectares into which up to 10 threatened mammal species, including Stick-nest Rats, can be released.

At the current rate of expansion, the Stick-nest Rat population at Mt Gibson may number 120-150 by the middle of 2012. It is set to be a vitally important source of animals not only for the larger Mt Gibson feral-free area but also for Faure Island, where the establishment of another population will significantly reduce the risk of extinction for the species.

Greater Stick-nest Rat *W.Lawler*

Camera traps help to monitor the population



The proportion of adult and sub-adult male and female Greater Stick-Nest Rats captured during surveys 3 months post-release and 6 months post-release compared with the proportion of each gender originally translocated.

Journey back in time at Karakamia

Karakamia Wildlife Sanctuary, only one hour from Perth, offers a unique experience for AWC supporters and their family and friends (and the general public). Covering 250 hectares of Jarrah forests and associated ecosystems, Karakamia is surrounded by a feral-proof fence which ensures a fox and cat-free environment for some of Australia's rarest mammals. As you enter Karakamia, you are stepping back in time to the Australian bush as it was before these feral predators arrived. You will marvel at the way the bush comes alive after dark, with Woylies, Quenda and Tammar Wallabies prominent as you enjoy a nocturnal walk guided by AWC staff.

For more information, visit ***www.australianwildlife.org/AWC-Sanctuaries/Karakamia-Sanctuary/Karakamia-Visitors-Program*** or call the booking office on 08 9572 3169 during business hours. The guided nocturnal walks take approximately 2 hours and are scheduled every Friday and Saturday night and other nights by special appointment. Prior bookings are essential.

Karakamia Wildlife Sanctuary *W.Lawler*

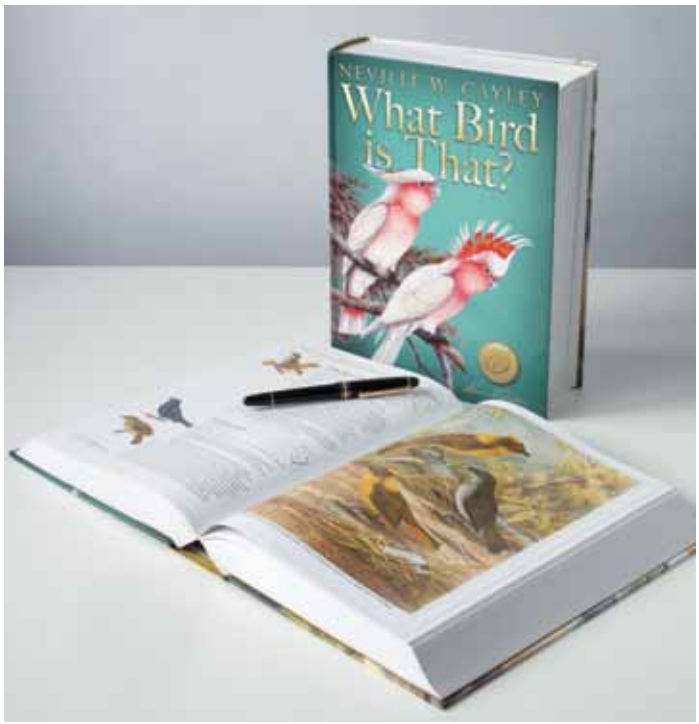
Woylie *W.Lawler*

Six copies of the classic *What Bird is That?* to be won by AWC supporters

The classic ornithological text – ***What Bird is That?*** – has been remastered in a beautiful edition published earlier this year. The original version, written and illustrated by Neville W Cayley, was published in 1931 and was an incredibly important and influential book. Cayley's dream was to create a nation of bird lovers to protect Australia's unique bird life. Initially updated by Terence Lindsay in the 1980s, this year's Special Signature Edition contains 832 pages and covers 769 birds. There is also a bonus e-book with 101 bird calls.

Australia's Heritage Publishing has kindly donated 6 copies of ***What Bird is That?*** to be given away to six lucky AWC supporters. All you need to do is make a donation between now and 31 January! Six names will be selected at random from all of those who have donated between 10 December and the end of January. The winners will be presented in February with their copy of the Special Signature Edition of ***What Bird is That?***

AWC supporters will be proud to note that at least 499 of Australia's 599 mainland bird species are found on one or more of our sanctuaries. This means that we help protect around 83% of Australian mainland bird species, making this a particularly relevant book for all supporters!



Optus partnership raises awareness

Generating public awareness about the plight of Australia's threatened wildlife is one of the strategies we employ in pursuit of our mission. To this end, our partnership with Optus has been enormously important in helping us reach millions of Australians. This year, Optus has implemented a range of key strategies including posting footage about AWC on their website and communicating our messages through various channels to almost half a million Optus customers every month. In addition, Optus recently donated to AWC the newly constructed Shape Our World website, which is an important educational tool for younger audiences.

By providing direct financial support for projects like the Purple-crowned Fairy-wren initiative (see pages 8-9) and enabling us to reach millions of Australians through the power of communication technology, our partnership with Optus continues to deliver outstanding results for Australia's wildlife. A short video on Optus and their support for AWC is available at ***http://www.youtube.com/watch?v=MgxIWoaxdiY***

we urgently need your help

yes, I want to help save Australia's threatened wildlife

The Bilby Challenge: matching your donations to AWC.

☐ Please match my gift under the Bilby Challenge. Eligible gifts attract a 50% match. (see www.australianwildlife.org/Support-AWC.aspx)

Greater Stick-nest Rat, Mt Gibson *W.Lawler*

Name: Dr/Mr/Mrs/Ms _____

Address: _____

Suburb: _____ State: _____ Postcode: _____

Telephone: W) _____ H) _____

E-mail: _____

MONTHLY PLEDGE

I wish to become a regular supporter and give **a tax deductible donation each month** of: ☐ $10 ☐ $25 ☐ $50 $ _____ Other (minimum $10)

I wish to pay by: ☐ **Direct debit from my bank account** Please fill in Direct Debit Request (see opposite).

☐ **Credit card** - Please fill in details or call 08 9380 9633.

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I would like to make a **single tax deductible** donation of:

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Direct Debit Request

I / We request that you draw by way of the Direct Debit System, $ _____ per month, for the payment of a monthly donation to Australian Wildlife Conservancy Fund.

My/Our Account details are

Institution: _____

Account Name: _____

Account Number: _____ BSB: ☐☐☐ ☐☐☐

I / We acknowledge that this Direct Debit Request is governed by the terms of the "Direct Debit Client Service Agreement" (set out below).

Signature: _____

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Bequests

☐ I am interested in making a bequest in my will. Please send me some information.

Information

☐ Please send any news or information by email

☐ Please tick this box if you do NOT wish to receive news and information on our latest initiatives and progress.

NEWS 20

Our Commitment to You, Drawing Arrangements:

1. We will advise you, in writing, the details of your monthly donation to Australian Wildlife Conservancy (amount, frequency, commencement date) at least 3 calendar days prior to the first drawing. Thereafter each drawing will be made on the 15th day of each month (or part thereof as specified).
2. Where the due date falls on a non-business day, the drawing will be made on the next working day.
3. We will not change the amount or frequency of drawings arrangements without your prior approval.
4. We reserve the right to cancel your monthly donation to Australian Wildlife Conservancy if three or more drawings are returned unpaid by your nominated Financial Institution and to arrange with you an alternative payment method.
5. We will keep all information pertaining to your nominated account at the Financial Institution, private and confidential.
6. We will promptly respond to any concerns you may have about amounts debited to your account.
7. We will send a receipt within 45 days of the conclusion of the financial year summarising your entire year's gifts for tax purposes.

Your Rights:

1. You may terminate your monthly donation to Australian Wildlife Conservancy at any time by giving written notice directly to us (PO Box 8070 Subiaco East 6008), or through your nominated Financial Institution. Notice given to us should be received by us at least 5 business days prior to the due date.
2. You may stop payment of a monthly donation by giving written notice directly to us (PO Box 8070 Subiaco East 6008), or through your nominated Financial Institution. Notice given to us should be received by us at least 5 business days prior to the due date.
3. You may request a change to the donation amount and/or frequency of the monthly donations by contacting us on (08) 9380 9633 and advising your requirements no less than 5 business days prior to the due date.
4. Where you consider that a drawing has been initiated incorrectly (outside the monthly donation to Australian Wildlife Conservancy arrangements) you may take the matter up directly with us on (08) 9380 9633, or lodge a Direct Debit Claim through your nominated Financial Institution.

Your commitment to us, Your responsibilities:

1. It is your responsibility to ensure that sufficient funds are available in the nominated account to meet a drawing on its due date. (You may be charged a fee by your Financial Institution if the account details are incorrect or there are insufficient funds in the nominated account when we attempt to deduct donations.)
2. It is your responsibility to ensure that the authorisation given to draw on the nominated account, is identical to the account signing instruction held by the Financial Institution where your account is based.
3. It is your responsibility to advise us if the account nominated for transactions with the Australian Wildlife Conservancy Fund is transferred or closed.
4. It is your responsibility to arrange a suitable alternative payment method with us if the Australian Wildlife Conservancy Fund drawing arrangements are cancelled either by yourselves or by your nominated Financial Institution.
5. Please enquire with your Financial Institution if you are uncertain whether direct debit functions are available on your account. (You may be charged a fee by your Financial Institution if the direct debit facility is not available on your account.)

australian wildlife conservancy

Please post this form to:

Australian Wildlife Conservancy - Reply Paid 8070 Subiaco East WA 6008 Phone: 08 9380 9633 www.australianwildlife.org ABN 36 068 572 556