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Director of National Parks strategic planning and performance

This annual report is one element in the strategic planning and performance assessment framework for the Director of National Parks. Other elements are described in this chapter, including a summary of performance for 2012–13.

Portfolio Budget Statements 2012–13

These documents detail Budget initiatives and appropriations against specific outcomes and outputs. The annual report completes the budget cycle by reporting on achievements for outcomes and outputs in the year under review. The Director of National Parks was included in the 2012–13 Portfolio Budget Statements for the Department of Sustainability, Environment, Water, Population and Communities and contributes to the achievement of Outcome 1:

The conservation and protection of Australia's terrestrial and marine biodiversity and ecosystems through supporting research, developing information, supporting natural resource management, and establishing and managing Commonwealth protected areas.

The Director contributes to meeting this outcome through:

Conservation and appreciation of Commonwealth reserves through the provision of safe visitor access, the control of invasive species and working with stakeholders and neighbours.

Performance outcomes for Program 1.1: Parks and Reserves, as identified in the Portfolio Budget Statements, follow.

Department of Sustainability, Environment, Water, Population and Communities Strategic Plan 2012–16

The department's strategic plan is the basis for its business planning and is reviewed annually to assess progress against priorities. Management of Commonwealth reserves in accordance with internationally agreed principles is identified as a priority in the plan.

Parks Australia Divisional Plan 2010–14

This plan sets out the long-term outcomes and shorter-term outputs for the Director of National Parks against seven key result areas (KRAs) as follows:

- KRA 1—Natural heritage management
- KRA 2—Cultural heritage management
- KRA 3—Joint management and working with Indigenous communities
- KRA 4—Use and appreciation of protected areas
- KRA 5—Stakeholders and partnerships
- KRA 6—Business management
- KRA 7—Biodiversity science, knowledge management and use.

Not all key result areas are equally relevant to all reserves. For example, KRA 3—joint management and working with Indigenous communities—applies largely to the three jointly managed reserves: Uluru–Kata Tjuta, Kakadu and Booderee national parks.

Strategies to achieve the outcomes described in the Parks Australia Divisional Plan and the department’s strategic plan are detailed in Parks Australia branch, section, team and individual work plans, and in schedules for implementing management plans.

Management plans

Section 366 of the *Environment Protection and Biodiversity Conservation Act 1999* requires the Director (or in the case of a jointly managed park, the Director and the relevant board of management) to prepare management plans for Commonwealth reserves for the reserve’s protection and conservation. Management plans have a maximum life of 10 years and must set out how the reserves are to be managed consistent with the relevant Australian IUCN Reserve Management Principles.

As at 30 June 2013, the Director is responsible for managing seven Commonwealth terrestrial and 59 Commonwealth marine reserves. Marine reserves were formerly managed by the department’s Marine Division under delegation from the Director. This delegation ended in March 2013 and marine reserves were transferred to the Director.

Four terrestrial reserve management plans are in place as at 30 June 2013. Draft management plans for Booderee National Park and Christmas Island National Park have been released for public comment and are in the process of being finalised, taking into account public submissions. Draft management plans are currently under preparation for Pulu Keeling National Park and Kakadu National Park, which are expected to be released for public comment in 2013–14.

Following the proclamation of 40 new Commonwealth marine reserves on 17 November 2012, the Director invited public comment on the proposed management plans for four new marine reserves networks (the south-west, north-west, north and temperate east) and the Coral Sea Commonwealth Marine Reserve. More than 80 000 submissions were received and taken into account to finalise the management plans. Public consultation on the preparation of a management plan for the South-east Commonwealth Marine Reserves Network was undertaken between July and August 2012 and generated approximately 20 000 submissions. The Minister approved management plans for five marine reserves networks and the Coral Sea Commonwealth Marine Reserve on 3 March 2013.

The management plan for the South-east Marine Reserves Network will come into effect on 1 July 2013. The management plans for the south-west, north-west, north and temperate east networks and the Coral Sea Commonwealth Marine Reserve will come into effect on 1 July 2014. The remote Heard Island and McDonald Islands Marine Reserve management plan expired in August 2012 and a draft second plan is currently being prepared by the department’s Australian Antarctic Division.

The Director is responsible for implementing these management plans and collaborates with Commonwealth and state agencies, including the Australian Fisheries Management Authority and the Australian Customs and Border Protection Service to ensure compliance and enforcement of the plans.

Management plan prescriptions not implemented

During the life of a management plan some prescriptions may not be implemented due to redundancy, impracticality or a lack of resources. There were no prescriptions in any management plan in the 2012–13 year that were designated as 'not to be implemented'.

Back from the brink

Christmas Island National Park is working hard to bring back two reptiles at risk of extinction—blue-tailed skinks and Lister's geckos.

Our captive breeding program for these reptiles has two centres, one within the park and one at Taronga Zoo, as a safety measure against any on-island disasters.

Reptile numbers in both centres continue to grow. Since 2011–12 the on-island population of blue-tailed skinks has increased by 46 per cent and Lister's geckos by 59 per cent. Today there are 343 skinks and 111 geckos on the island.

To make room we've built a new reptile house. We're building eight predator-proof enclosures on the island in 2013, with the help of a grant from the Foundation for National Parks and Wildlife. These new enclosures can hold up to about 1000 skinks.

Our captive breeding program began in 2009. Taronga Zoo came on board in 2011, through an agreement funded by Parks Australia.

The nationally-vulnerable Lister's gecko was thought extinct on Christmas Island for more than 20 years. A wild population was rediscovered in 2009.

Despite being widespread and common up until the 1990s, blue-tailed skink numbers have seriously declined, mostly due to introduced species, like the yellow crazy ant, giant centipede, Asian wolf snake, cats and rats.

Today we're working to reduce these threats through aerial baiting of yellow crazy ants and working with several other agencies to help control cats and rats on Christmas Island.

Our next step is to identify and address other specific threats to the blue-tailed skink and Lister's gecko before we can release our captive populations back into the wild.



Taronga Zoo's Lisa Cavanagh spent time on Christmas Island this year, helping look after our endangered reptiles.

Performance outcomes

The following performance outcomes for 2012–13 use key result areas, outcomes and indicators identified in the Parks Australia Divisional Plan and key performance indicators and deliverables identified in the 2012–13 Portfolio Budget Statements (marked 'PBS').

KRA 1—Natural heritage management

Objective

- The Commonwealth protected area estate contributes to the long-term viability of Australia's biodiversity.

Actions

- Undertake monitoring, research and conservation activities to maintain or improve the status of natural values for which Commonwealth reserves were declared and/or recognised.^{PBS}
- Minimise the impacts of threats to natural values of Commonwealth reserves.^{PBS}

2012–13 results

Botanic gardens management

- Construction works for the new Red Centre garden at the Australian National Botanic Gardens were undertaken throughout the year and will be completed in August 2013. The works included approximately 4500 tonnes of sand, a viewing platform, concrete path network and timber bridges, interpretation hub and pavement artwork. Plant species which have been propagated and planted include desert oaks, grass trees, chenopods, acacias and various ephemerals; a mature eight-metre Central Australian cabbage palm (*Livistona mariae*), propagated in Queensland, was also planted.
- Entrances to the Sydney Region garden were upgraded with extensive use of sandstone landscape materials and the garden was enhanced with more than 100 new plants gained from field collections, including 20 listed threatened species.
- Planning and preparation for a stocktake of the living collections of the Gardens in 2013–14 was completed. Priority areas were identified in line with visitor expectations and operational requirements.
- Over the summer season the Gardens' National Seed Bank made 109 collections of 61 grassland species, with the aim of making multiple collections of key species from different populations to increase genetic diversity in the seed bank: 15 species were collected from three or more populations, 14 species were collected from two populations and 36 species were collected from a single population.

- Funded by the Millennium Seed Bank Partnership, Kew, in Britain, and coordinated by the Australian Seed Bank Partnership, the Gardens contributed to the 1000 species project via collection and research of Norfolk Island's endemic, rare and threatened plant species. Two collecting trips to Norfolk Island were undertaken and 80 collections were made from 45 species of flowering plants (including 19 threatened species) and 24 species of ferns (including six threatened species).
- The Gardens hosted a myrtle rust workshop in December 2012 bringing together researchers and land managers to share information on the myrtle rust situation and future management.
- The Gardens' conservation program focused on plants from grassy woodland communities and sub-alpine flora. Specific conservation projects were undertaken associated with the following threatened species: *Zieria obcordata*, *Z. baeuerlenii*, *Swainsona recta*, *Eucalyptus imlayensis*, *Lepidium ginninderense*, *L. hyssopifolium*, *Plinthanthesis rodwayi*, *Dampiera fusca*, *Pultenaea baeuerlenii* and *Hakea pulvinifera*.
- The Gardens was a partner in a successful precinct rabbit-control program that included Australian Capital Territory Parks and Conservation, the Australian National University, the CSIRO, the National Museum of Australia and the National Capital Authority.
- The Gardens contracted the Australian Capital Territory government to undertake a hazard reduction burn on the southern annex in May 2013.
- Management of invasive morning glory (*Ipomea cairica* and *I. indica*) at the Norfolk Island Botanic Garden has resulted in an 80 per cent reduction in occurrence.

Habitat management

- The Christmas Island Minesite-to-Rainforest Rehabilitation Program continued under a renegotiated memorandum of understanding between the Director and the Department of Regional Australia, Local Government, Arts and Sport. Earthworks were conducted over five hectares of former mine fields with around 19 200 seedlings planted, comprising primary plantings on five hectares of bare mine fields and secondary plantings on 14 hectares of already established fields. Around 120 hectares of previously planted fields were maintained (weeding and fertilising). Based on the program's framework for selection of priority rehabilitation sites, Christmas Island National Park collaborated with a researcher to develop spatial decision support tools to assist with rehabilitation site selection which will result in more effective and efficient rehabilitation.
- A workshop covering marine conservation activities on Christmas Island, coordinated by the University of Western Australia and the Director, was conducted with marine researchers and managers. The workshop identified major conservation values and threats and recommended some broad research and management directions for the marine environments of Christmas Island and the Cocos (Keeling) Islands.
- Kakadu National Park's prescribed burning program continued, with the implementation of the Stone Country fire management strategy successfully preventing broad-scale late-dry-season wildfires in this landscape unit. Fine-scale fire plans are in development to address the specific requirements of particular species or communities that will be managed more intensively.

- Six climate change research projects funded by the department's National Environmental Research Program continued in Kakadu's wetland and coastal environments, including investigation of floodplain values and threats and analysis of patterns and processes of aquatic biodiversity. The knowledge gained from these projects will be used to assess potential effects on northern Australia's aquatic biodiversity caused by climate change, sea-level rise and other threatening processes in the region, and to design management strategies to minimise their impact. Specific activities undertaken as part of the projects included:
 - sampling of fish biodiversity in the lowlands and estuary of the South Alligator River at 70 dry-season locations and 50 wet-season locations
 - a workshop was held with Bininj to identify culturally important wetlands and to record changes that may have been noticed in the floodplain environments.
- Kakadu hosted a remote-sensing and high-resolution aerial photography workshop in January 2013 bringing together researchers, park staff and traditional owners to better understand how these tools can help in managing the park.
- Erosion and soil compaction were monitored in the South Alligator Valley containment rehabilitation area of Kakadu (an area affected by previous uranium-mining activity), particularly for any impact on groundwater and vegetation. Minor rehabilitation works were undertaken to remediate erosion adjoining the containment cap.

Significant species management

- Park managers nominated 46 species across six terrestrial reserves to determine whether viable populations of these significant species have been maintained in those reserves. Of the selected species the populations of two are increasing, 18 remain steady, nine are decreasing, one may be extinct, two are locally extinct and population data are deficient for 14^{PBS} (further information on species monitoring is provided in Appendix B: Portfolio Budget Statements reporting 2012–13).
- Long-term monitoring at Booderee National Park shows key indicator species increased rapidly during the early 2000s in the first few years of fox baiting and have now declined to a new and stable equilibrium abundance. Stable or increasing population trends for threatened eastern bristlebirds (*Dasyornis brachypterus*) and shorebirds were recorded, likely in response to low fox numbers.
- Despite a wetter than normal year, no green and golden bell frogs (*Litoria aurea*) were detected at Booderee—this listed threatened species has not been detected in the park for eight years and is regarded as locally extinct. Nocturnal surveys again failed to detect the greater glider (*Petauroides volans*) which has not been recorded in the park since 2007; natural re-introduction through a narrow corridor is possible as the species persists in nearby forest.
- Booderee continued to work with Jervis Bay Marine Park on baited remote underwater video monitoring of fish populations and on tracking of selected fish species using surgically inserted devices within park waters. This is improving understanding of the potential impact of fishing in the park over time.



Bike riding is a popular activity in the Sydney Harbour National Landscape. Photo: Anson Smart for Tourism Australia

National Landscapes goes from strength to strength

It has been a milestone year for our National Landscapes program - we reached our goal of recognising 16 iconic landscapes across Australia.

This national initiative, led by us with our partners Tourism Australia, invites Australia's visitors to immerse themselves in our country's natural wonders—from snorkelling on the Great Barrier Reef to hiking through the Australian Alps.

National Landscapes are about giving Australia's visitors an experience of the heart and soul of this country—our natural environment, while learning how we can all make sure these special places are conserved forever.

Sydney Harbour, the Wet Tropics in Queensland and Tasmania's Island Heritage all signed up as National Landscapes this year.

For nearly 42 per cent of our international visitors, it's the Sydney Harbour National Landscape that first greets them when they land in Australia. It's an easily accessible landscape full of natural surprises, particularly attractive to our growing market of Chinese visitors.

For a long time small tourism businesses and conservationists have driven eco-tourism in the Wet Tropics, from the Daintree rainforests to Townsville, to help build a sustainable future for the region.

By being part of the National Landscapes partnership, the local community is refocusing and redefining what they offer to visitors, marketing their natural competitive advantage to the world.

Tasmania's Island Heritage offers an experience found nowhere else on earth. A pristinely beautiful but accessible wilderness of dramatic coastlines, thick forests and snow-capped mountains, this is a living museum of some of the world's oldest and rarest plants and animals.

Just one example of our National Landscapes combining outstanding visitor experiences with conservation is the Conservation Ecology Centre and its social enterprise, the Great Ocean Ecolodge, on Victoria's famous Great Ocean Road.

The Great Ocean Ecolodge, recognised by National Geographic as one of the top eco-lodges in the world, was established by the Conservation Ecology Centre, to support an environmental trust. Using profits from the Ecolodge, private sector contributions and government grants, the trust is helping protect local habitat and supporting research on endangered species such as the tiger quoll.

Founder Lizzie Corke is a former winner of the Prime Minister's Environmentalist of the Year award in 2005.

"National Landscapes combine the best of both worlds, engaging visitors to the region in ensuring the future of its landscapes and wildlife and, in doing so, providing a deeply meaningful experience which provides opportunities for visitors to leave a legacy of conservation," she said.

For more on Australia's National Landscapes visit: <http://www.australia.com/campaigns/nationallandscapes/australiasnationallandscapes.htm>

For more on the work of the Great Ocean Ecolodge and Great Ocean Road National Landscape visit: <http://www.greatoceanecolodge.com/>

- The Christmas Island National Park captive-breeding program for native terrestrial reptiles, undertaken in partnership with Sydney's Taronga Zoo, continued to result in increasing captive populations of Lister's gecko (*Lepidodactylus listeri*) and blue-tailed skink (*Cryptoblepharus egeriae*), with on-island captive populations of the former increasing by 59 per cent (to 111 individuals) and the latter by 46 per cent (to 343 individuals), supplemented by smaller off-island populations at Taronga. Two of the three captive non-breeding forest skinks (*Emoia nativitatis*) died. Construction of a new reptile housing and captive-breeding facility to cater for expanding on-island populations was completed.
- A reptile survey involving Christmas Island National Park staff and independent researchers conducted in October 2012 and in March-to-May 2013 reaffirmed that the island's native reptiles are under serious threat of extinction in the wild, although the giant gecko (*Cyrtodactylus sadleiri*) persists and one Lister's gecko was detected from a previously unknown population. A meeting of the Christmas Island Reptile Advisory Panel was held following these surveys.
- Nominations for the listing of Christmas Island's endemic terrestrial reptiles and the Christmas Island flying-fox (*Pteropus melanotus natalis*) as critically endangered under the EPBC Act were prepared and submitted.

- Road-management activities resulted in a reduction in mortality of red crabs (*Gecarcoidea natalis*) during the 2012–13 annual breeding migration when compared to previous years. A total of 677 deaths of robber crabs (*Birgus latro*) from vehicles was recorded in 2012, compared with 667 in 2011 and 854 in 2010. These figures suggest Christmas Island National Park's program of providing education materials to the community about the impact of traffic on robber crabs is helping to raise awareness of the issue, given the significant increase in vehicles and vehicle trips since monitoring commenced in January 2010. However, there were 113 robber crab deaths in May 2013—the highest monthly number on record.
- A survey of the Christmas Island flying-fox using the same survey methods previously adopted showed a reduced detection rate at fixed monitoring points in comparison to a 2006 survey, indicating a possible population decline—the survey is being repeated in 2013. Several likely threats to the flying fox were found by a scientific workshop (facilitated by the department's National Environmental Research Program) in November, which will be used in continuing threat identification and mitigation programs.
- Island-wide surveys for the Christmas Island hawk-owl (*Ninox natalis*) conducted in-conjunction with flying-fox surveys indicated the hawk-owl population appears to be stable and is not a conservation concern.
- Kakadu National Park hosted a three-day threatened species workshop in March 2013 to support the development of a threatened species strategy to guide management of the park's threatened species—development of the strategy has commenced.
- Survey work in the South Alligator River undertaken via the department's National Environmental Research Program doubled the number of records for the critically endangered spartooth shark (*Glyphis glyphis*), highlighting the importance of Kakadu for this species.
- Biodiversity hotspot research surveys continued to be conducted in Kakadu in conjunction with the Northern Territory Government's Biodiversity Unit. Projects included:
 - a three-night survey of Gardangarl (Field Island) for the vulnerable water mouse (*Xeromys myoides*)—while no individuals were trapped, evidence of their presence was observed
 - three surveys each of six-days duration in December 2012, March 2013 and June 2013 for the little-known Oenpelli python (*Morelia oenpelliensis*) and the threatened giant rock skink (*Bellatorias obiri*) at Nourlangie Rock, Koongarra and Nawurlandja—a single giant rock skink was recorded
 - one survey for Leichhardt's grasshopper (*Petasida ephippigera*) conducted in the Nourlangie area with 28 individuals recorded.
- Kakadu continued its collaborative project with the University of Sydney and the Territory Wildlife Park monitoring the impact of cane toads (*Rhinella marina*) on a population of northern quolls (*Dasyurus hallucatus*) at East Alligator Ranger Station. Eighty-eight captive-bred quolls trained to avoid cane toads were released at the site in the 2009–10 wet season and follow-up trapping in 2011–12 showed that 66 per cent of the population was descended from this group. Twenty-two quolls were trapped at the site between November 2012 and February 2013.

- Monitoring confirmed steady numbers of estuarine crocodiles (*Crocodylus porosus*) with numbers in Kakadu estimated at between 8000 and 12 000 animals or 10 per cent of the total Northern Territory population.
- Ongoing survey of the nesting activity of vulnerable flatback turtles (*Natator depressus*) on Gardangarl produced similar results in 2012 to those of previous years, with 65 turtles and 51 nests recorded during the 20-night survey period.
- Plant and animal experts from Charles Darwin University and the Northern Territory Government worked with Kakadu staff and traditional owners on the park's five-yearly flora and fauna fire plot surveys. Sixty-three fire plots and 20 fauna plots were assessed; the results are currently being collated.
- Following the completion of a risk assessment in 2011–12 and in line with recovery plan recommendations, 39 endangered Cocos buff-banded rails (*Gallirallus philippensis andrewsi*) were successfully translocated in April 2013 from Pulu Keeling National Park to nearby Horsburgh Island as a second insurance population. Park staff worked with scientists from the national recovery team in undertaking the translocation. Post-translocation monitoring confirmed the birds remain present and ongoing monitoring will determine if the population persists and becomes self-sustaining.
- At Uluru–Kata Tjuta National Park, monitoring continued to record an increase in numbers of the translocated population of the endangered mala or rufous hare-wallaby (*Lagorchestes hirsutus*) and the National Mala Recovery Team was re-established to improve population management of the species as a whole. Numbers of the vulnerable tjakura or great desert skink (*Liopholis kintorei*) were maintained in the park's borefield habitat, despite exposure to wildfire.
- Two scientific journal articles (one published, one in press) were prepared reporting the results of surveys of two little-known small mammals in Uluru–Kata Tjuta: the Ooldea dunnart (*Sminthopsis ooldea*) and the endangered southern marsupial mole (*Notoryctes typhlops*).
- Uluru–Kata Tjuta entered into a new partnership with Alice Springs-based research organisations (CSIRO and Charles Darwin University) to increase research on-park. The park also supported three PhD research programs investigating questions vital to park management decision-making (fire; impact of introduced mammalian carnivores; and condition of Uluru waterholes and mesic habitats).
- A program for *ex situ* alpine plant conservation supported by a three-year partnership between the Australian National Botanic Gardens, Australian National University, Australian Research Council, University of Queensland and the Friends of the Gardens concluded. The program studied the effect of climate change on the reproductive ecology and demography of Australian alpine flora and its outcomes are currently being prepared for publication.
- The Gardens initiated a research program to investigate ecological drivers of seed germination and establishment for plants of Australian alpine and sub-alpine bogs and fens. Field trips to multiple bogs were made periodically between December 2012 and April 2013 to collect species with varied fruiting phenology from multiple sites. A total of 118 collections were made including 44 collections of the 15 target taxa.

Invasive species management

- Park managers nominated 24 significant invasive species across six terrestrial reserves and have been monitoring changes in their distribution and abundance. Of the selected species, the populations of six are increasing, four remain steady, eight are decreasing and population data are deficient for six^{PBS} (further information on monitoring of significant invasive species is provided in Appendix B: Portfolio Budget Statements reporting 2012–13).
- Booderee National Park completed the fourth aerial helicopter survey of bitou bush (*Chrysanthemoides monilifera*) which has been conducted every three years since 2004. The surveys indicate a steady decrease in density and distribution of bitou bush, especially following spray/burn/spray treatment, with an increase in density in some areas over the past year. Continued treatment by spraying with splatter-guns (88.5 hectares), ground-spraying (9.6 hectares) and hand-pulling (22 hectares) contributed to the general decline of this invasive species in the park.
- Splatter-gun control of 0.5 hectares of invasive kikuyu grass (*Pennisetum clandestinum*) was successfully trialled in penguin habitat on Bowen Island in Booderee; the trial was a follow-up to very successful aerial treatment of kikuyu using ultra-low volume weedkiller Roundup.
- Christmas Island National Park's continued management of yellow crazy ants (*Anoplolepis gracilipes*) included:
 - aerial baiting of 1067 hectares of crazy ant supercolonies in September 2012
 - an independent pre and post-baiting off-target and bioaccumulation impact monitoring study of the aerial baiting program which concluded there was no evidence of accumulation of bait in the environment
 - commencing the 2013 biennial island-wide survey to map crazy ant supercolonies and determine red crab population abundance and distribution, as well as to monitor other aspects of the island's biodiversity
 - a three-year research project for the biological control of crazy ants funded by the Director and conducted by La Trobe University, the results of which indicate that biological control of crazy ants appears feasible and would not have any off-target impacts
 - meetings of the Crazy Ant Scientific Advisory Panel in August and December 2012; among other matters the panel provided advice in relation to implementing a biological control program.
- Based on the results of the biological control research and the panel's advice, the Director and La Trobe University entered into a three-year contract (from 1 July 2013) to trial, implement and monitor a biological control program for crazy ants on Christmas Island. The implementation phase has commenced via host-specificity testing in Malaysia and seeking of necessary environmental approvals.

- Christmas Island National Park continued to facilitate and support cross-tenure cat management across the island. Between the program's commencement in May 2010 and August 2012 approximately 450 feral cats were removed, resulting in significant improvement in the nesting success of red-tailed tropicbirds (*Phaethon rubricauda*) at the Settlement nesting colony. Working with the Shire of Christmas Island, the park negotiated a funding agreement with island stakeholders to continue a targeted feral cat and rat control program for 2013–14; however, significant additional long-term funding is needed to eradicate feral cats and effectively control rats.
- Christmas Island continued to control the single known infestation of invasive Siam weed (*Chromolaena odorata*) and island-wide monitoring did not detect any other infestations.
- Kakadu National Park's weed management strategy was revised and reviewed. Monitoring and control programs for invasive weeds continued throughout the year although lower-than-average rainfall reduced airboat access to floodplain environments. Achievements included:
 - monitoring and treatment of 222 known mimosa (*Mimosa pigra*) infestation sites ranging in size from 0.5 square metres to 30 square metres, and the location and treatment of two new infestations—seed viability of 30 years for this species is now suspected as a result of long-term monitoring of an isolated infestation
 - conducting a mapping survey of olive hymenachne (*Hymenachne amplexicaulis*) and para grass (*Brachiaria mutica*) in the Wildman, West and South Alligator River floodplains under the department's National Environmental Research Program which will enable preparation of detailed distribution maps; trials of chemical control methods for para grass were also initiated under the program
 - monitoring and treatment of 30 para grass and olive hymenachne sites in the East, South and West Alligator River catchments
 - removal of 30 new satellite gamba grass (*Andropogon gayanus*) infestations from the Kakadu and Arnhem highways and monitoring of an historic infestation in the Mudginbardi area; no other gamba infestations were recorded.
- Feral animal achievements at Kakadu comprised:
 - implementation of a wild dog management program for Jabiru township in collaboration with the West Arnhem Shire Council
 - planning for establishment of four cat exclusion areas which will assist researchers to understand the role of cats in the documented decline of small mammals across northern Australia
 - a limited feral animal control program focused on culling of animals affecting public safety including opportunistic culling of pigs and buffaloes and an aerial program conducted in August 2012 in the Yellow Water area.

Moving our buff-banded rails

In a true team effort Pulu Keeling National Park staff joined forces with Christmas Island National Park staff, scientists, the Cocos (Keeling) Island Shire Council and the community to support the recovery of the endangered Cocos buff-banded rail.

This ground-dwelling bird is found only within the park — a tiny atoll in the Cocos (Keeling) Islands, which provides critical habitat for a population of around 1000 rails.

The establishment of a second population of the birds on nearby Horsburgh Island is a critical action from the recovery plan for these birds, which were once widespread across the Cocos (Keeling) Islands.

A second population will act as an insurance policy, in case threats like disease, cyclones or introduced predators, especially rats, impact on the main population.

In April, the team captured 39 of the rare birds and transported them to their new home on Horsburgh Island. This was a logistically challenging operation. Landing a boat on Pulu Keeling National Park is very difficult so the birds had to be swum out to a waiting boat through breaking surf—in specially designed transport boxes!

All the birds made the journey unharmed and settled in well. It is too early to determine if they will persist and become a self-sustaining, breeding population. So, they will be monitored with tracking devices and through regular field surveys over the coming months.

This project has only been possible because of all our partners including the Cocos Islands Shire Council, Western Australia Government and consultant scientists who co-ordinated the scientific aspects of our capture of the birds.



Park staff banded the rails prior to their release.



Park staff swim the buff-banded rails to shore.



A released Cocos buff-banded rail.

- Woody weeds were removed from approximately 14 hectares of the Mt Pitt section of Norfolk Island National Park and 4.5 hectares of the Phillip Island section, allowing for regeneration of native forest and increased habitat for threatened species. Numbers of feral chickens in the park were significantly reduced through a change in bait used in rat control.
- Monitoring which was instigated in June 2012 continued throughout the year to detect the potential entry of rats to Pulu Keeling National Park from suspected illegal entry vessels shipwrecked on the island. While no rats were detected, bait stations were installed as a precautionary measure and visual impact surveys continued; clean-up of the two wrecks that occurred in the latter half of 2012 was also completed. The threat of rats and other invasive species remains with further vessels continuing to arrive in the Cocos (Keeling) Islands Territory.
- Cocos-based staff completed a Caring for our Country Program project which commenced in 2009 and funded a series of activities to protect Pulu Keeling National Park from the impacts of invasive species. During the final weed-control trip in January 2013 an estimated area of 15.4 hectares of the main target weed species, coral berry (*Rivinia humilis*), was treated by herbicide spraying; the four trips completed under the program resulted in a decline of 17 per cent in coral berry distribution. Long-term control is needed to target emerging seedlings. As part of the project, interpretive signage was installed at key departure points for marine vessels in the Cocos (Keeling) Islands region and at the park's landing area to inform residents and visitors of the risk of invasive species and ways to reduce their spread.
- Reduced numbers of feral animals (foxes, cats and rabbits) were observed at Uluru–Kata Tjuta National Park after successful control techniques in areas of high biodiversity across the park.

KRA 2—Cultural heritage management

Objective

- Australia's cultural heritage is conserved and effectively communicated to the public.

Actions

- Identify, protect and conserve cultural heritage values for which the parks were declared/recognised.
- Minimise threats to cultural values.
- Work with traditional owners to assess and maintain key cultural sites.
- Provide assistance to traditional owners in recording and maintaining living cultural traditions.
- Assist in the facilitation of on-country activities to encourage intergenerational transfer of knowledge.
- Provide appropriate interpretive material to the public to communicate the cultural heritage of Commonwealth reserves.

2012–13 results

Identification and conservation of cultural sites

- With the involvement of their traditional owners, Kakadu and Uluru–Kata Tjuṯa national parks continued their rock art maintenance programs. Kakadu also continued discussions with the Aboriginal Areas Protection Authority and Northern Land Council about a register of sites of significance and access protocols in the park, particularly in relation to public walking routes. Uluru–Kata Tjuṯa's Cultural Site Management System database was upgraded and installed on new hardware.
- A group of park managers, tour guides and rock art conservators from South Africa visited Kakadu in August 2012 to examine rock art conservation techniques and rock art tourism management under an Indigenous rock art conservation exchange program funded and hosted by the Getty Foundation; the visit involved park staff and traditional owners and a reciprocal visit to South Africa is scheduled for August 2013. A PhD study continued to investigate the effectiveness of current and previous rock art conservation techniques used by park staff and results will be provided to park management.
- Booderee National Park liaised with the Wreck Bay Aboriginal Community Council on a number of proposed developments and potential impacts on cultural heritage.
- Pulu Keeling National Park staff participated in organisational arrangements for a proposed event in 2014 to commemorate the centenary of the wreck of the SMS *Emden* on the island during WW1.

Maintenance and promotion of traditional cultural values

- Discussions continued with the Booderee Board of Management regarding broad cultural heritage directions for the draft second management plan. The draft cultural heritage strategy was discussed and considered for endorsement at a meeting of the board.
- Kakadu supported investigations into potential excavation sites for an Australian National University archaeological research project 'Prehistory to History: Landscape and Cultural Change on the South Alligator River'.
- Uluru–Kata Tjuṯa has commenced development of an annual cultural heritage program derived from the park's Cultural Heritage Action Plan. The program will provide guidance on cultural heritage priorities, timing and activities.
- Construction of a new men's keeping place in the Muṯitjulu Community at Uluru–Kata Tjuṯa is due for completion at the end of July 2013.

Histories, pre-histories and knowledge recording

- Kakadu produced two reports on the life history of significant traditional owners. The park also hosted and supported the Australian National University post-graduate course 'Physical Conservation of Heritage Sites' at Anlarr (Nourlangie Camp), the old Jim Jim pub and the historic town of Pine Creek.
- Uluru–Kata Tjuṯa's oral history collection is being catalogued and archived and traditional ecological knowledge recordings with senior traditional owners are being added to the Cultural Site Management System.

KRA 3—Joint management and working with Indigenous communities

Objectives

- Indigenous communities benefit from, and play a lead role in, the Australian Government's protected-area management program.
- Activities and investments contribute to meeting Closing the Gap targets.

Actions

- Enable effective participation of traditional owners and Indigenous communities in park management.^{PBS}
- Engage Indigenous staff and/or contractors to provide park services.^{PBS}
- Provide opportunities for the establishment of Indigenous-owned enterprises, including those which provide an Indigenous cultural experience to visitors.
- Work together with boards of management, land councils and service-delivery agencies to assist in meeting Closing the Gap targets.

2012–13 results

Indigenous staffing

- The employment level of ongoing Indigenous staff in Parks Australia's three jointly managed national parks was essentially unchanged from 2011–12, with a slight increase in the actual number of ongoing Indigenous staff representing a small decrease in full-time equivalent terms. There is strong Indigenous representation in ongoing roles at Kakadu National Park and Booderee National Park; Indigenous participation at Uluru–Kata Tjuta National Park has improved but remains below desirable levels.^{PBS}
- Booderee reinstated a specified Indigenous trainee position to complement the career pathway training initiatives undertaken by the park. Specified trainee ranger positions were maintained at Kakadu and Uluru–Kata Tjuta.^{PBS}
- The number of Indigenous staff engaged as intermittent and irregular employees at Kakadu went from 53 to 52. Two Indigenous staff were engaged as intermittent and irregular employees at Booderee's visitor centre.^{PBS}
- The Kakadu Indigenous Ranger Program, funded by the Australian Government's Working on Country program, provided resources allowing Kakadu to host 11 community rangers in visitor services and natural and cultural heritage management programs in the park. Funding for the program was renewed for a further four years.^{PBS}
- The externally funded Muŋitjulu Community Rangers Program at Uluru–Kata Tjuta provided for engagement of 49 Anangu in flexible employment arrangements.^{PBS}

Contribution of Aboriginal enterprises to park services

- Wreck Bay Aboriginal Community Council was contracted to provide \$1.55 million in cleaning, road maintenance, entry station, horticultural and infrastructure maintenance services to Booderee.^{PBS}

- In its 2011–12 annual report, Wreck Bay Aboriginal Community Council reported that it employed 14 full-time, four permanent part-time and up to 10 casual staff to deliver services to Booderee.^{PBS}
- The Director and Wreck Bay Aboriginal Community Council finalised a new 10-year service contract for outsourcing of park services worth \$20 million. Five service-level agreements were negotiated as part of the service contract review process including new agreements for infrastructure maintenance and horticultural services.^{PBS}

Training and support

- Junior Ranger programs at the three jointly-managed national parks continued in association with local primary schools. As part of the program at Uluru–Kata Tjuta, students designed and created ‘keeping safe’ signage for visitors on a water tank at the base of Uluru.
- Parks Australia supported Indigenous staff and board members from the jointly managed parks to attend the World Indigenous Network Conference in Darwin in May 2013.
- At Booderee National Park, a broad range of training was provided to park staff and Wreck Bay Aboriginal Community Council members in accordance with the park’s new training strategy. Support was provided to two Indigenous staff members to undertake university studies.
- Booderee continued to support work-experience placement for Indigenous students from the Wreck Bay Community, with three new school-based apprentices beginning a two-year placement in the park in November 2012. Booderee also coordinated the placement of a further 11 Indigenous school-based apprentices from the Wreck Bay Community across the Jervis Bay region and, in association with other land-management organisations, assisted in establishing the externally funded Indigenous Ranger Cadet Program at Vincentia High School, targeting year nine and 10 students.
- Kakadu National Park continued to support the placement and employment of two Indigenous school-based apprentices and provided two cross-cultural appreciation and awareness training events.
- A \$92,000 investment was made by the Department of Families, Housing, Community Services and Indigenous Affairs to deliver an Indigenous leadership program in the West Arnhem Region. Kakadu traditional owners are expected to play a key role in mentoring participants and key Indigenous staff will be identified to participate.
- Uluru–Kata Tjuta National Park convened a women’s governance workshop in June 2013 to facilitate greater engagement between senior female Parks Australia staff and female board members.

Boards of management

- The Booderee National Park Board of Management met twice during the year, together with four meetings of the Training and Interpretation Subcommittee.
- The Kakadu National Park Board of Management met three times and the Kakadu Tourism Consultative Committee met four times to provide advice and information to the board.
- Four meetings of the Uluru–Kata Tjuta National Park Board of Management were held, supported by three meetings of the Cultural Heritage and Scientific Consultative Committee to provide advice to the board on natural and cultural heritage issues.

Come discover Norfolk Island National Park

Norfolk Island National Park's new Discovery Centre is well and truly taking shape, with the final interior fit out set to be completed in 2013.

We've designed this purpose-built centre to both welcome and inform our park visitors.

Constructed from locally-sourced Norfolk Island pine, a wide open door and feature skylight flood the centre with natural light and colour, giving our visitors the wonderful feeling of being outside while inside.

From the roof top visitors take in an outstanding view out over our botanic garden, while the centre's interior offers opportunities to explore the history, plants and animals of our park through a series of creative displays.

Norfolk Island Park Manager Coral Rowston says the Discovery Centre adds value to both visitors and the island's economy.

"This is a major project, a major investment for us and something we've wanted to do for a long time. All of our visitor surveys showed that what people really wanted was more information on our park and botanic garden. This new centre delivers that in a spectacular but environmentally-sustainable way, very much in keeping with the natural look and feel of Norfolk," she said.

"I'm pleased nearly everything you see in the Discovery Centre is the result of local efforts – from the Norfolk Island pine timber, to the construction, to the interior displays themselves.

"Our visitors are already enjoying the roof top walk and views of the botanic gardens, which are a major feature of the island's new tourism campaign, 'There's more to Norfolk Island'.

"We're very much looking forward to opening up the interior of the Discovery Centre to our visitors, seeing them enjoy the results of our hard work.

"We hope that the Discovery Centre will become one of the highlights, not only of our park, but to our visitors' overall experience of Norfolk Island."

The Norfolk Island National Park Discovery Centre is preparing to welcome its first visitors in late 2013.



Norfolk Island National Park's brand new Discovery Centre.

KRA 4—Use and appreciation of protected areas

Objectives

- Commonwealth reserves are valued for providing broader benefits to society such as a greater appreciation and understanding of Australia's biodiversity, unique habitats and landscapes.
- Australia's protected areas are recognised as significant contributors to tourism.

Actions

- Provide inspirational, satisfying and safe experiences to visitors to Commonwealth reserves.^{PBS}
- Ensure visitor monitoring and reporting methods are consistent across the Commonwealth reserve estate.
- Minimise visitor impacts on natural and cultural values.
- Improve tourism and conservation partnerships.
- Facilitate National Landscape experience development strategies that promote sustainable and appropriate tourism in protected areas.

2012–13 results

Visitor numbers and satisfaction

- Visitor surveys were undertaken at Kakadu and Uluru–Kata Tjuta national parks, with high overall satisfaction levels recorded from respondents (Kakadu at 95 per cent and Uluru–Kata Tjuta at 94 per cent).^{PBS}
- An estimated 1.3 million people visited Commonwealth terrestrial reserves, a 5 per cent decrease from 2011–12. This reflects a general decline in visitor numbers to regional parks across Australia, fuelled by a substantial increase in Australian outbound tourism and a decline in the Northern Territory's traditional international inbound markets.

Education/interpretation activities

- The Australian National Botanic Gardens hosted 11 195 school and tertiary students from 250 schools in education programs (67 per cent of students participated in programs run by the Gardens and 33 per cent in do-it-yourself programs run by their own teachers). Schools from every state and territory included the Gardens on their Canberra excursion itinerary.
- The Gardens reviewed its school programs in line with the Australian Curriculum and participated in a partnership with the National Capital Education Tourism Project to attract interstate school excursions to Canberra and to the Gardens.
- Booderee National Park conducted approximately 100 cultural interpretation sessions for junior rangers, visiting school groups and other visitors as part of the park's school holiday education programs. While the number of sessions and attendees decreased slightly due to resource constraints, just under 3500 children and adults were beneficiaries of Booderee's cultural education sessions in 2012–13.

- Christmas Island National Park and the Christmas Island Tourism Association jointly prepared a new visitor guide for the park. A free smartphone and tablet computer application for the island's forest and seabirds was also prepared, with highly positive feedback received since its launch at the annual Bird and Nature Week in September 2012.
- Parks Australia conducted a visitor-experience assessment workshop for Christmas Island involving park staff and key on-island stakeholders. The workshop identified additional priority visitor experiences for the island.
- At Kakadu, a record 43 000 visitors participated in more than 1800 seasonal interpretive ranger program activities conducted from May to October, with 100 per cent of those surveyed reporting satisfaction with their experiences. Information and interpretive services were provided to 43 452 visitors at the Bowali Visitor Centre.
- Norfolk Island National Park staff provided educational visits to Phillip Island for students of Norfolk Island Central School and worked with the school in rehabilitating areas of the park and botanic garden.
- Staff in the Territory of the Cocos (Keeling) Islands conducted the annual high school trip to Pulu Keeling National Park which included cultural and environmental information. Three other environmental information sessions were also conducted.
- Uluru–Kata Tjuta National Park staff delivered free interpretive events to visitors including the daily ranger-guided Mala Walk at Uluru. The park convened a one-day workshop for accredited guides to learn bush skills from Anangu and meet with the park management team to improve the quality and depth of interpretation about the park.

Tourism and visitor facilities

- New information/interpretive signage for the historic Cape St. George Lighthouse in Booderee was completed in June 2013 for installation in July 2013. Marine information signage was also re-designed and is due for roll out in July 2013.
- Booderee purchased and installed new lockable information boards at key visitation locations. The boards provide information on park education/interpretive offerings, conservation and monitoring efforts, recycling and carbon-footprint reduction measures.
- Booderee finalised the contract for supply and installation of a short-term tie-up and loading jetty with disabled access to replace Murray's Wharf which had become unsafe and was demolished due to safety concerns. Construction of the new facility is scheduled from July to November 2013.
- Visitor boardwalk concept designs for The Dales wetlands site in Christmas Island National Park were sought and assessed, resulting in the selection of a facility that will be long-lasting and fitting for the area's status as a wetland of international importance. Key island stakeholders were engaged in the design assessment and selection process which will help facilitate a consistent approach to boardwalks and viewing platforms across the island.
- Norfolk Island National Park completed construction of a new purpose-built 'Discovery Centre' featuring hands-on interpretation of the park and its values.
- Uluru–Kata Tjuta National Park, in consultation with Anangu, finalised and installed new interpretive and safety informational signage for the Uluru climb. A free application on the birds of the park was released, joining those for Booderee, Christmas Island and Kakadu national parks.

Awards and Events

- In February 2013 Uluru–Kata Tjuta National Park took out top prize in the 2012 Qantas Australian Tourism Awards for major tourism attraction; Indigenous-owned tour guiding operation Yellow Water Cruises, based in Kakadu National Park, was awarded best major tour and/or transport operator. Uluru–Kata Tjuta also featured in the Northern Territory's Brolga Awards in December 2012, winning the brolga for major tourism attraction together with an encouragement award for heritage and cultural tourism.
- The Australian National Botanic Gardens hosted an extensive range of popular public programs and events including art and photographic exhibitions, monthly botanical and horticultural workshops and National Science Week displays. The Summer Sounds concert series, held in January 2013 in partnership with the Friends of the Gardens, attracted 6000 people over four weekends while the monthly 'afterDARK' evening tour program attracted 826 visitors, with survey results reporting high visitor satisfaction.
- The Gardens is actively seeking new events that complement the values of the site and enhance visitor experiences. New events for 2012–13 included 'Sunset Cinema' outdoor movies for three evenings a week over six weeks during February and March 2013 which attracted 4650 people; the Craft Beer Festival in March which attracted 1200 people; and in April a 'Family Picnic Day' to celebrate the contribution older Australians make to their community.
- Booderee National Park promoted three main events in which staff participated, with accompanying interpretative information—Clean Up Australia Day, World Environment Day and the annual Whale Census Day.
- Kakadu supported 10 community events including festivals celebrating Indigenous culture and community spirit, such as the Mahbilil Festival in Jabiru and the Stone Country Festival in Gunbalanya, 30th birthday celebrations for Jabiru, the Darwin and Jabiru careers expos, World Parks Day, World Wetland's Day, and Parks Week. A new events policy was introduced for the park, consistent with Tourism Northern Territory's marketing strategy which targets the corporate and incentives market seeking unique locations to host events.
- Kakadu hosted the production company Northern Pictures for 12 months during filming of a four-part documentary series on the park and its people. The series has been purchased by the Australian Broadcasting Corporation and will be screened in Australia and worldwide in September 2013.
- Uluru–Kata Tjuta facilitated and supported a number of significant media events held in the park including 'Other side of the Rock!', a concert hosted by the Mutitjulu Community in October 2012; the free-to-air launch of National Indigenous Television in December 2012; and filming of the feature film *Tracks*. Revised commercial tourism and major events policies were also introduced which are designed to facilitate new and innovative tourism products and events in the park.

KRA 5—Stakeholders and partnerships

Objective

- Parks Australia is recognised as a valued partner nationally and internationally in the conservation of biodiversity and collaborative research.

Actions

- Effectively involve stakeholders and partners in park management activities.^{PBS}
- Form new and effective partnerships with government agencies, neighbours and stakeholders.
- Co-fund research projects with other agencies under equitable funding arrangements.^{PBS}
- Play a leadership role in targeted collaborative biodiversity research, such as through Australia's Virtual Herbarium and the Australian Seed Bank Partnership.

2012–13 results

- Constructive partnerships in managing Commonwealth reserves continued with state and territory government parks agencies; relevant Australian Government agencies including the Department of Defence; the Department of Regional Australia, Local Government and Sport; the Department of Agriculture, Fisheries and Forestry; the Australian Customs and Border Protection Service; and Tourism Australia; industry groups including the Transport and Tourism Forum; and with councils; universities; non-government organisations; and community groups.
- Research partnerships continued with a range of organisations including the Parks and Wildlife Commission of the Northern Territory, CSIRO, Australian Institute of Marine Science, James Cook University, Australian National University, University of Canberra, Charles Darwin University and The University of Sydney.
- Strong partnerships with the IUCN and the New South Wales National Parks and Wildlife Service were formed via joint planning for the IUCN World Parks Congress scheduled for Sydney in November 2014. Hosting this global event provides an opportunity to enhance Australia's reputation as a progressive and effective manager of biodiversity.
- The Director led the Australian delegation to the IUCN World Conservation Congress in Jeju, Korea in September 2012, reinforcing our role as a constructive IUCN member and participant in the congress. The member's assembly voted on 184 draft motions of which 183 were adopted, and voted on 11 statutory reform proposals of which nine were adopted. Australia's focus was on positive outcomes for the 2014 IUCN World Parks Congress, marine issues, the Great Barrier Reef, Antarctica and protected areas.
- The successful partnership with Tourism Australia in Australia's National Landscapes Program culminated in the February 2013 announcement of Sydney Harbour as the 16th and final national landscape; the Wet Tropics and Tasmania's Island Heritage were also launched as part of the program during the year. With the foundations of the program now largely set, future activities will concentrate on developing more high-quality experiences for visitors and building strategic partnerships.

Biodiscovery—a Pacific approach

In October 2012, biodiscovery experts from around the world converged on the Eskitis Institute in Brisbane for the Oceania Biodiscovery Forum.

The Director of National Parks has a long association with biodiscovery. This was the third in a series of national biodiscovery forums, designed to bring researchers, governments and industry together to discuss the management of biodiscovery in Australia and beyond.

There is a growing global market in the use of genetic and biochemical resources from plants, animals and microbial life, leading to the development of new products including pharmaceuticals, nutraceuticals and alternative fuels.

Research into genetic resources, often sourced from Australia's parks and reserves, can also lead us to a new and better understanding of Australian species, and how to conserve them.

The challenge before us as researchers, industry and all levels of government is to develop, adopt and use global standards for trade in genetic resources.

Hosting the national biodiscovery forum gives us the chance to take forward the discussion of how we will engage with such global standards, and to engage groups that do not traditionally see themselves as having an interest in conservation.

These global standards are being defined through the Nagoya Protocol. The protocol is an international agreement within the Convention on Biological Diversity to establish a global framework to build certainty and transparency in accessing genetic material and sharing the benefits of their use.

Australia signed the Nagoya Protocol last year—to make sure countries benefit from the use of their genetic resources, while giving certainty to business development and ensuring research is carried out in a sustainable way.

Delegates from Papua New Guinea, the European Union, Switzerland, the Cook Islands and Norway joined their Australian counterparts at the biodiscovery forum to discuss how this international framework will operate in Australia, across the region and the world.

They also discussed a key part of the protocol—recognising the value of traditional knowledge and genetic resources held by Indigenous people, making sure they benefit from the use of their knowledge.

The forum was organised by the Australian Government, supported by the multi donor ABS Capacity Development Initiative and the Secretariat of the Pacific Regional Environment Programme, and hosted by the Eskitis Institute at Griffith University.

- The Australian National Botanic Gardens became an active member of the Research and Learning Institutes Group that operates under the banner 'THINK CANBERRA' and seeks to build on Canberra's worldwide reputation for leading innovation and research by developing funding proposals, adding value to business events and enabling event organisers direct access to research being conducted in Canberra's tertiary institutions.
- The Friends of the Gardens continued to play an active role in supporting the work of the Gardens including through daily volunteer guided walks, support for major public events and financial support for projects such as the pavement artwork at the new Red Centre Garden and new seed bank equipment. The new 'Seedy Volunteers' group completed its second year of collecting with 18 trips planned and 16 completed.
- Ongoing close collaboration with Greening Australia and the Centre for Australian National Biodiversity Research included the successful delivery of a project funded by the Australian Government's Caring for our Country program; outcomes included collection of three kilograms of native seed for restoration of endangered grassland communities and support for an industry workshop on establishing seed production areas.
- The Gardens continued to coordinate the Australian Seed Bank Partnership and its national seed collecting program targeting species that are threatened, endemic or have economic potential. The partnership made 38 *ex situ* collections of species susceptible to dieback (*Phytophthora cinnamomi*) to support implementation of the national dieback threat abatement plan.
- The Australian Cultivar Registration Authority, which is based at the Gardens, secured further funding from private donors and the horticulture industry to enhance nomenclatorial details of cultivated plants in the Australian Plant Name Index database.
- Under an agreement with the Australian Capital Territory Government to support *ex situ* conservation of the Territory's rare and threatened plants, the Gardens undertook seed collection, seed banking and germination trials of *Arachnorchis actensis*, *Corunastylis ectopa*, *Prasophyllum petilum* and *Drabastrum alpestre*, together with seed collection and banking from *in situ* populations of an agreed selection of other native understorey species.
- The Gardens continued its partnership with the New South Wales Office of Environment and Heritage, Eurobodalla Regional Botanic Gardens and Booderee National Park to collaboratively collect and share new plant material as part of a field program targeting Sydney sandstone and regional flora.
- The Centre for Australian National Biodiversity Research continued the contract with New South Wales Roads and Maritime Services to document and manage translocation and conservation of three species of orchids threatened by the Bulahdelah bypass realignment on the Pacific Highway—this very successful project is nearing completion.
- The partnership with James Cook University and the Queensland Herbarium in the Australian Tropical Herbarium in Cairns continued, with the Gardens and the Centre for Australian National Biodiversity Research providing database services to support the herbarium's collections management. Planning for an interactive key to savanna plants continued, as an extension to the online Key to Rainforest Plants which was launched in 2010.

- Booderee National Park continued its support for volunteers working on natural resource management projects including Booderee Park Care (approximately 550 person hours). Booderee also maintained its cooperative arrangements with land-management agencies and tourism bodies in the region and continued to lead regional fox management.
- Christmas Island National Park continued to facilitate the successful partnership for island-wide cat and rat management with the Shire of Christmas Island, Australian Government departments, Western Australian government agencies and Phosphate Resources Ltd. The park also collaborated with the shire in relation to road-management activities designed to help reduce mortality of red crabs during the annual breeding migration; these activities received high levels of stakeholder and community support for on and off-park road-management activities.
- In September 2012, Christmas Island staff convened a working group overseeing preparation of the draft Christmas Island regional (multi-species) recovery plan. Support was also provided to visiting scientists and to Western Australian Government agencies undertaking research projects, off-park weed control work and environmental assessments, resulting in access to better information on the values and threats to the island's natural environment.
- Two school-based trainees were engaged on Christmas Island to provide relevant work experience while helping to assist park management programs.
- A joint program was initiated with the Department of Immigration and Citizenship and Serco Group Pty Ltd for volunteer asylum seekers to assist with forest rehabilitation operations on Christmas Island and in doing so gain work experience and skills.
- Kakadu National Park participated in the steering committee for Australia's Timeless North National Landscape which included development of an experience development action plan and investment opportunities document for the landscape.
- Kakadu facilitated a Jim Jim/Twin Falls visitor-experience workshop which involved 30 tourism industry members, traditional owners and park staff; and hosted a workshop to inform the tourism industry on a new commercial licence process to be introduced in 2013–14. Twenty issues of the *Tourism Update* newsletter were issued during 2012–13 to more than 800 subscribers.
- Kakadu continued to work collaboratively across tenure with Northern Territory Government agencies, the Department of Defence, Indigenous Protected Areas and other neighbours to implement fire management at the landscape level.
- The Kakadu Research Advisory Committee was consulted on a range of research issues throughout 2012–13.
- Cocos-based staff secured the support of the Cocos (Keeling) Islands Shire Council for the translocation of endangered Cocos buff-banded rails from Pulu Keeling National Park to Horsburgh Island in the Territory's southern atoll and established a wide-ranging advisory panel which informed planning for the project. Five local community members were engaged to support the translocation operation as well as weed control on Pulu Keeling. Logistical support was also provided to the council and Western Australian agencies for a rat-eradication program on Direction Island, also in the southern atoll.
- Two meetings of the Pulu Keeling National Park Community Management Committee were held during the year which produced strong support for the buff-banded rail translocation.

- Cocos-based staff worked collaboratively with the Australian Customs and Border Protection Service to respond to landings of suspected illegal entry vessels—measures such as joint patrols of Pulu Keeling, information-sharing and orientation to the park for service staff enabled effective responses to landings to be mounted and ensured efficient use of Commonwealth resources regionally.
- Uluru–Kata Tjuta National Park worked with key stakeholders and Anangu to facilitate the development of a ‘Welcome to Country’ message to be played at the Ayers Rock airport.

KRA 6—Business management

Objectives

- Robust and accurate business systems are in place which promote health and safety, maintain park infrastructure integrity and ensure work is undertaken within budget constraints.
- Parks Australia’s ecological footprint is minimised through adaptive management and supporting business practices.

Actions

- Base planning and decision making on the best available information, legal obligations and government and agency policies.^{PBS}
- Ensure expenditure does not exceed budget.
- Minimise the number of ‘A’ or ‘B’ findings from the annual Australian National Audit Office audit of Director of National Parks financial statements.
- Establish and implement robust and effective management plans for Commonwealth reserves.
- Minimise risks and the number and severity of reportable occupational health and safety incidents involving staff, contractors, volunteers and park users.^{PBS}
- Ensure that accessible assets and infrastructure are maintained in a safe condition.
- Use adaptive management regimes that respond to new information about impacts of climate change and improved technologies.
- Audit energy and water use and waste in Commonwealth reserves and implement actions to provide efficiencies and improvements.

2012–13 results

Management planning

- All Commonwealth reserves were managed in accordance with the requirements of the relevant Australian IUCN Reserve Management Principles set out in the EPBC Regulations.
- Management plans for terrestrial reserves continued to be developed and implemented in line with EPBC Act requirements. Management plans are in place for Kakadu, Norfolk Island and Uluru–Kata Tjuta national parks and the Australian National Botanic Gardens. Management plans for Booderee and Christmas Island national parks are in the process of being finalised, taking into account submissions received on draft plans released for public comment. Draft management plans are currently under preparation for Pulu Keeling and Kakadu national parks which are expected to be released for public comment in 2013–14.

- As part of the Kakadu Tourism Master Plan, the first precinct plan is being developed for the Jim Jim/Twin Falls area of the park. A visitor experience plan is being drafted with the final version to be presented to the Kakadu Board of Management in September 2013.
- Draft management plans for newly established Commonwealth marine reserves networks and the Coral Sea Commonwealth Marine Reserve were released for public comment on 14 January 2013 and the Minister approved management plans for five marine reserves networks and the Coral Sea reserve on 3 March 2013. The management plan for the South-east network will come into effect on 1 July 2013 with those for the South-west, North-west, North and Temperate East networks and the Coral Sea reserve coming into effect on 1 July 2014.
- The management plan for Heard Island and McDonald Islands Marine Reserve expired in August 2012 and a draft second plan is currently under preparation by the department's Australian Antarctic Division.

Climate change

- Climate change strategies are in place for all terrestrial reserves. Each strategy addresses five key objectives:
 - understanding the implications of climate change
 - implementing adaptation measures to maximise the resilience of Commonwealth reserves
 - reducing each reserve's carbon footprint
 - working with communities, industries and stakeholders to mitigate and adapt to climate change
 - communicating the implications of climate change and Parks Australia's response.
- A decrease in total greenhouse emissions from energy consumption by parks and reserves was recorded in 2012–13 compared with the average over the past three years, confirming the trend of recent years. This represented an 1.7 per cent reduction in the volume of carbon dioxide emissions from stationary sources compared to the average over the past three years and a 14.8 per cent reduction for transport sources.
- Further information on greenhouse gas emissions is provided in the environmental sustainability report in Appendix C.

Financial and business management

- The Auditor-General issued an unqualified audit report for the 2012–13 financial statements of the Director of National Parks. There were no 'A' or 'B' findings from the Australian National Audit Office audit of the financial statements.

Risk and work health and safety

- The Director has participated in the Comcover Risk Management Benchmarking Scheme since 2002–03. In 2012–13 the Director scored 8.0 out of a possible 10 compared to an average score of 6.8 for the 143 participating Australian Government agencies. For the past eight years the Director has consistently scored above the average for all agencies.^{PBS}
- The Director was highly commended (small agency) in the 2012 Comcover Awards for Excellence in Risk Management, enterprise-wide category.

Reducing red tape for industry in marine reserves

Parks Australia is working with Australia's south-eastern commercial fishing industry and Australian Fisheries Management Authority to improve the effectiveness of controls on fishing in marine reserves and, at the same time, cut red tape through a single class approval.

The South-east Marine Reserves Network provides important habitats for a variety of bird and sea life, from migratory whales making their way to and from Antarctica, to iconic species such as white sharks and southern bluefin tuna.

The 10-year management plan provides for the protection of this marine ecosystem, while minimising impacts on recreational and commercial fishing sectors. The plan replaces the approval arrangements with a single class approval that no longer requires commercial fishers to individually register to operate within the reserves. The class approval sets out the management zones where commercial fishing can occur, fishing methods that can be used, and the conditions that commercial fishers need to follow when fishing in the South-east Commonwealth Marine Reserves Network.

Parks Australia, the agency responsible for Commonwealth marine reserves, has worked closely with Commonwealth and state fisheries management agencies to standardise as much as possible requirements for commercial fishers and to arrange for on-going sharing of information regarding vessel monitoring and compliance.

The class approval for commercial fishing came into effect with the management plan on 1 July 2013 and will remain in effect for the term of the plan. It serves as an important template for other Commonwealth marine reserves networks not only for commercial fishing, but for other sectors, and as a real example of cutting red tape while improving social, economic and environmental outcomes.



Weedy sea dragon. Photo: Erik Schlogl

- Parks Australia recorded 116 work health and safety incidents in 2012–13, a reduction in the number recorded last year. The reduction principally arose from minor incidents previously considered as ‘near misses’ no longer being regarded as work health and safety incidents.
- Only one major injury was sustained by Parks Australia’s staff and contractors. Two park visitors died (a drowning in the waters surrounding Booderee National Park and a suspected drowning at Jim Jim Falls in Kakadu National Park) and there were three major injuries to visitors.^{PBS}

KRA 7—Biodiversity science, knowledge management and use

Objectives

- There is a comprehensive information base across Australia, including for the National Reserve System, that supports effective decision making, spatial management and conservation.
- Threatened native plant species occurring within Commonwealth parks and reserves are conserved in cooperation with national and international institutions.

Actions

- Provide high quality, comprehensive and current information to the Australian community through publications and enhanced websites to facilitate and foster understanding of park values and Australia’s natural and cultural heritage.^{PBS}
- Undertake research designed to engage with end users and support evidence-based decision making by environmental managers and policymakers.^{PBS}
- Increase knowledge of Australia’s biodiversity through research and training.^{PBS}
- Make effective use of research investment in Commonwealth reserves.
- Enhance *ex situ* conservation of Australia’s rare and threatened biodiversity, through the activities of the Australian National Botanic Gardens and targeted projects.

2012–13 results

Websites and publications

- Parks Australia websites parksaustralia.gov.au and kakadu.com.au received a 12.6 per cent increase in visitation from the previous year. Our online community saw the biggest growth with traffic to the Parks Australia blog growing by 22 per cent and our Facebook community by 206 per cent. These social channels are proving to be invaluable in providing key tailored information and messages to interested and active parks and conservation audiences.^{PBS}

Biodiversity knowledge

- In partnership with Bioplatforms Australia and the CSIRO, Parks Australia initiated a project to document the biodiversity of Australian soils, beginning with samples from Booderee and other Commonwealth national parks. The product will be a national dataset on soil biodiversity—the Biome of Australia Soil Environments (or BASE)—which will provide better knowledge of soil nutrients and microbial processes around the continent.
- The Gardens deployed its redeveloped living collection information system to better support the operational activities of the nursery, seed bank, horticulture and plant records activities, and to integrate with provenance data in the herbarium system. A special labelling project for the living collection placed 2084 labels on plants in more than 92 sections along parts of the main path and rock garden, significantly improving interpretative use and value of the plant collections for visitors.
- The Gardens and the Centre for Australian National Biodiversity Research participated in national and international biodiversity information management and technical infrastructure projects in partnership with many important stakeholders including the Council of Heads of Australasian Herbaria, the Council of Heads of Australia's Botanic Gardens and the Atlas of Living Australia.
- Contractual collaboration with the Atlas of Living Australia formally ceased during the year with the conclusion of the initial funding round, however, operational collaboration intensified to build the nomenclature and taxonomic infrastructure for Australian plant and animal species, in association with the Australian Biological Resources Study. The Gardens also collaborated with the Atlas and the Taxonomy Research and Information Network to develop specifications for species' profiles for managing digital biodiversity data.
- The Gardens updated the Australian Plant Image Index to make 4790 additional images accessible on the internet giving a total of 83 758 images widely available. The currency of data for the Australian Plant Name Index and the Australian Plant Census was maintained, including extensive editing of existing data and capture of new data. The Australian Plant Census is approaching the conclusion of the first pass of data compilation and resolution for vascular plants.
- The Gardens maintained the Census of Vascular Plants, Hornworts, Liverworts and Slime Moulds of the Australian Capital Territory, including collation of new data for as-yet unrepresented groups such as lichens and fungi.
- The Australian National Herbarium added data for 8450 herbarium specimens with a total of 898 254 specimens now recorded in the database and available to the public through the internet.
- The Australian National Herbarium's highly successful summer botanical intern program completed its 21st year in February 2013. Second and third-year university students received work experience and formal training in herbarium botany and plant conservation.
- Researchers completed 23 scientific publications resulting from research undertaken at the Australian National Herbarium as part of the Centre for Australian National Biodiversity Research. Areas of study included Asteraceae (daisies), Orchidaceae (orchids), Myrtaceae and mosses as well as biogeography of Australian flora.

