



Bush Rangers

Western Australia



Annual Report 2007



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Department of
Environment and Conservation

Our environment, our future

“Students, adult volunteers and community members have continued to support the growth and development of the Department of Environment and Conservation’s (DEC’s) Bush Rangers WA program. As well as affording young people the chance to develop life skills while undertaking environmental work with and in their communities, the program’s conservation activities are contributing to the fight against climate change.

DEC recognises the vital role that Bush Rangers’ activities play in raising awareness about climate change and the threat it poses, both to biodiversity and to the wellbeing of people in our State, and the department looks forward to sharing this important responsibility with these committed Western Australians.”

Alison Hansen
Senior Project Officer
Bush Rangers WA

Cover photo: *Camaraderie – John Septimus Roe Community High School Bush Rangers.*

DEC Bush Rangers Annual Report 2007

Engaging communities with their youth in biodiversity conservation

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Emmanuel Catholic College Bush Rangers collaborating in a Landcare salinity and revegetation project at Tammin.

Review of the year 2007

Since its inception in 1998, more than 7,000 WA youth aged 13 to 17 have taken part in the Bush Rangers WA program, experiencing first hand biodiversity protection and conservation of our natural environment. Through this they have achieved a sensitive understanding of the major environmental issues facing Western Australia.

More than 200 local community groups, State and national organisations have engaged in the Bush Ranger program to achieve outstanding results in conservation activities.

During 2007, 1,741 Bush Rangers contributed more than 300,000 volunteer hours to conservation and community projects during their weekly commitments, in addition to involvement in prominent annual projects facilitated by local and State-wide agencies and organisations.

Unit leaders are the backbone of the program. Their energy, creativity and willingness to source active and engaging project activities for their cadets ensure that the program thrives and grows.

As well as instilling a robust ethic for conservation among thousands of young people involved in the nationally accredited program, the Bush Ranger experience has afforded pathway opportunities to employment in natural resource management through both university scholarships and through opportunities for selection into the Department of Environment and Conservation's (DEC's) prestigious graduate recruit program and Indigenous traineeships.

Below: John Septimus Roe Community High School Bush Rangers at the Perth Royal Show.



The Bush Rangers WA program was successful in achieving endorsement with the Curriculum Council for 2007, with many students in years 10, 11 and 12 benefiting from their points being accredited toward their Western Australian Certificate of Education (WACE). Some schools have embraced the program, bringing it into their school curriculum and delivering it both in and out of school time.

Individual Bush Rangers who have completed their Year 12 studies are returning to their units as instructors-in-training, indicating the depth and variety of credentials and opportunities the program offers in life skills.

In 2007, the new management team for the Duke of Edinburgh Award announced a change in the interpretation of the structure for membership. Regular activities carried out by Bush Ranger cadets will qualify candidates for awards under the three levels following membership to the program. It is expected that the patron, HRH Prince Edward, Earl of Wessex, will visit Australia in 2008 to commemorate the fiftieth anniversary of the award.

In 2006, the National Centre of Science, Information and Communications Technology and Mathematics Education for Rural and Regional Australia (SiMERRA) undertook a national survey of science teachers that found a significantly higher unmet need in non-metropolitan schools for alternative activities to suit talented, special-needs and Indigenous students, compared with metropolitan schools.

SiMERRA WA has funded a research project to identify the impact of the introduction of a Bush Rangers cadet group on learning within three schools in WA.

The project aims to support and document in a remote location the processes and outcomes of a whole-school teacher professional development initiative focused on the innovative use of new technology to enhance teaching and learning in science, information and communication technology, and mathematics. More specifically, as teachers at K-12 remote community schools engage in learning about, planning for, and implementing the use of interactive whiteboards, they will be supported by the SiMERRA WA project team through an action learning and professional development program.

Since the program's inception, Lotterywest has supported the establishment of new Bush Rangers units with one-off grants. Expansion of Lotterywest's funding criteria in 2006 enabled Bush Ranger units to present annual submissions for assisted funding. During 2007, eight Bush Ranger units successfully achieved funding grants toward their units' activities.




Bush Rangers work with scientists in fauna monitoring at Perup Ecology Centre.

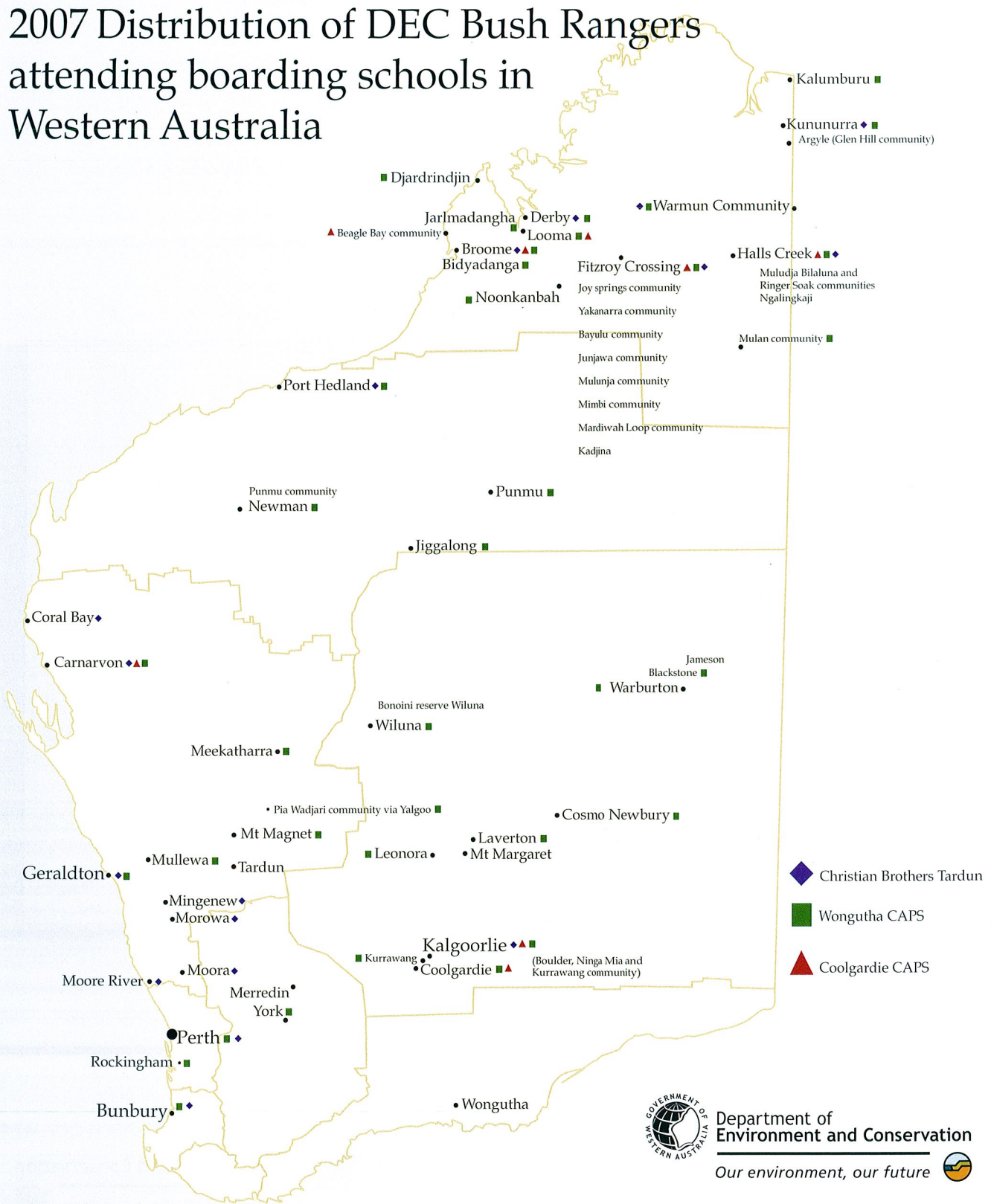
2007 Location of DEC Bush Ranger units in Western Australia



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2007 Distribution of DEC Bush Rangers attending boarding schools in Western Australia



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History of the program

Bush Rangers WA has rapidly expanded in numbers and distribution across the education sector since it was launched in August 1998 as a pilot program involving two Perth schools. A total of 47 units are now active throughout WA across metropolitan and regional areas, from Halls Creek in the north, to Coolgardie on the eastern border, south to Esperance and across to Albany.

Below: *Wongatha CAPS Bush Rangers.*

Bush Rangers WA is a voluntary nature conservation program for young Western Australians. It is part of the broader Cadets WA program, run by the Office for Youth within the Department for Communities, which aims to give all secondary school-aged youth the opportunity to take part in personal development training. The training provides practical life skills; develops leadership, teamwork and initiative; and fosters qualities of community responsibility and service.



Our role as a host organisation

DEC performs the role of a host organisation within the Cadets WA program, by inviting membership from secondary school-aged people across WA to take part in community and conservation activities in the Bush Rangers WA program.

The Bush Rangers play a vital role in helping DEC achieve its vision of working with the community to conserve WA's biodiverse natural resources. They enable the conservation message to extend beyond their direct involvement in the program and reach a wide audience in the WA community – through the many effective interactions that occur as the Bush Rangers do important work in and for their communities.

The diverse and comprehensive range of opportunities offered by DEC's program to help youth achieve their potential in life skill development, conservation volunteering and careers includes:

- engaging local communities with their youth in biodiversity conservation;

Below: Revegetation projects are a major focus in the cadet units' annual activities.



- providing reward experiences for committed young people;
- maintaining a system of awards that acknowledges cadets and adult volunteers;
- effectively engaging all Bush Rangers WA units to communicate the work they do;
- providing work experience and pathways for cadets who wish to pursue a career in conservation;
- providing professional development for the unit leaders and adult volunteers at the annual Bush Rangers WA in-service conference, as well as providing opportunities for them to experience the way DEC functions in different divisions; and
- encouraging more than 90 DEC staff to partner with Bush Rangers units and embrace the advantages achieved through these partnerships.

Bush Rangers reward experiences

The Bush Rangers WA program has offered a number of reward experiences each year to cadets who have demonstrated excellence within their unit.

At these ‘in the field’ reward experiences, DEC’s professional and committed team of scientists came together with practical field leaders to emphasise biodiversity conservation messages. These reward experiences enrich the program and enable Bush Rangers to communicate back to their unit and the school community.

Practical reward experiences included:

- monitoring the effect of fox baiting on native animal populations at Perup Nature Reserve with DEC’s Science Division;
- an expedition to the Shark Bay World Heritage Area;
- Geographic Information Systems training and conservation project support;
- helping with the Perth Royal Show’s *Land Experience* display; and
- a Fire Management Services Branch prescribed burn at Dwellingup.

In addition to the practical experiences hosted by DEC scientists and field staff, the three regional Bush Ranger sectors – Goldfields/Esperance, South West and Perth metropolitan – staged their annual regional camps around the State. The camps offered opportunities for cadets to meet and experience camaraderie, social and environmental interaction, and cooperation through shared experiences and common goals.

In addition, these reward experiences developed peer social networks, enabling cadets to keep in contact with members from other units throughout WA. Several cadets reported that their experiences helped them gain confidence and create or confirm volunteer or career aspirations.

Monitoring the effect of fox baiting on native animal populations at Perup Nature Reserve with DEC’s Science Division

Since 1999, 166 cadets and instructors have experienced hands-on field monitoring of the effects of fox baiting on native animal populations at the Perup Nature Reserve east of Manjimup in the Great Southern. Baiting and clearing fauna traps, night fauna counts, monitoring and recording information, using GPS units, completing safe and effective native animal handling and analysing results are all part of these annual spring and autumn events provided by DEC’s Science Division staff.

An expedition to Shark Bay World Heritage Area

Each April and October, staff from DEC’s Science and Regional Services divisions in the Shark Bay World Heritage Area provide a small group of cadets with unique practical experiences during a week-long field excursion. This reward field experience gives the Bush Ranger cadets the opportunity to enjoy exceptional animal encounters during practical activities in the bilby and other rare native animal breeding programs, as well as the every-day manual work projects and maintenance of the Francois Peron National Park. Practical assistance with the dolphin feeding schedules at Monkey Mia is a coveted highlight of this expedition.

Geographic Information Systems (GIS) training and conservation project support

DEC's GIS section has developed a new and exciting partnership with the Bush Rangers WA program. After successful negotiation in 2006 with the software company Environmental Systems Research Institute to gain sponsorship to provide ArcView software licenses to all participating cadets and instructors, DEC's GIS section developed and implemented training programs and provided resource data to Bush Ranger units. This reward is designed to assist cadets to adopt the use of sophisticated graphic computer applications to communicate and record accurate data in their environmental conservation projects. All units have the opportunity to take part in this training.

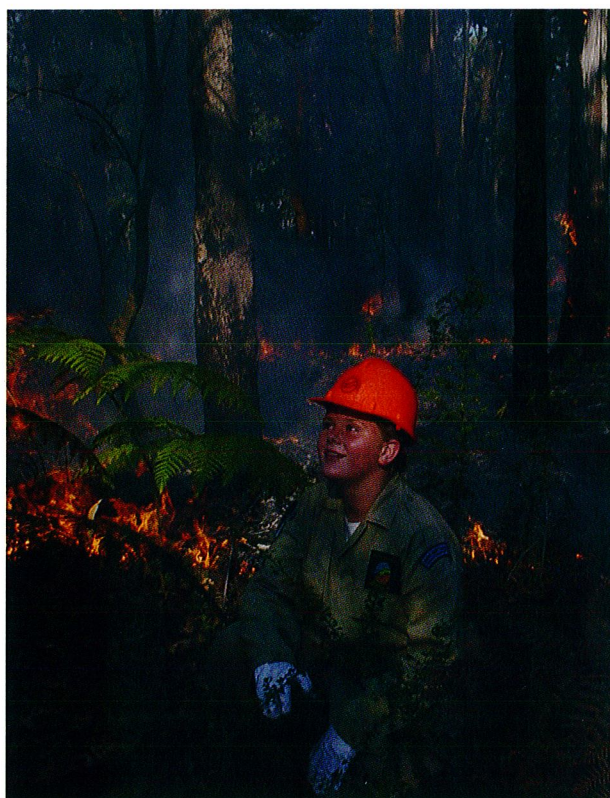
Helping with the Perth Royal Show's *Land Experience* display

Bush Ranger cadets have contributed an estimated 2,500* volunteer hours during the past nine years assisting with the conservation displays at the Perth Royal Show. In 2007, 90 Bush Rangers, together with their unit leaders, volunteered their time to a range of tasks and assignments delivering the conservation message to visitors to the *Land Experience* pavilion. These included providing general assistance and maintenance to the display area, recording and tallying visitor numbers to the display, making conservation kites, helping visitors make their own 'conservation' badges and working with mascot 'Captain Cleanup' on the main oval of the Claremont Showgrounds.

* Please note that the figure provided for volunteer hours contributed through the program at the Perth Royal Show in the 2005 Annual Report is incorrect.

Fire Management Services Branch prescribed burn at Dwellingup

Twelve of the most committed cadets from six units completed the nationally accredited 'Basic Bush Fire Awareness' course at Dwellingup in 2007. In its ninth year, this reward has been offered to the program by DEC's Fire Management Services Branch with an estimated 110 cadets and unit instructors engaging in the annual two-day event. The comprehensive course includes activities in health and fitness for the fire line and planning and conducting a prescribed burn at the Forest Heritage Centre, incorporating a theory and a practical test to achieve their certificates.



A John Septimus Roe Community High School Bush Ranger cadet taking part in a DEC prescribed burn during the Basic Bush Fire Awareness course.

Conservation and other community service – our collective role

Bush Rangers across the State contributed more than 300,000 hours to the Bush Rangers WA program during 2007 and some 1,500 Bush Rangers and their instructors engaged in great conservation experiences in a team environment. More than 80 DEC staff assisted Bush Rangers locally and while conducting field work and camps throughout the year. Environmental conservation activities are not limited to DEC – many Bush Ranger units align with their local shires, corporate and community groups and mining companies, which all work to plans established as a result of scientific research.

Each year DEC offers opportunities for Bush Rangers to work directly with scientists in the field learning and being mentored first-hand in critical research in the monitoring and protection of threatened species and natural ecological communities.

Below: A Kalbarri District High School Bush Ranger releasing an ash grey mouse after a trapping activity.



During 2007, the Bush Rangers WA units collectively engaged in a variety of conservation and other community service activities at their schools, in their local communities and on their expeditions. The types of projects undertaken were determined by each unit's individual interests, practical and logistical considerations and the availability of human and other resources.

Conservation and community projects were undertaken on marine and terrestrial areas managed by DEC and other privately owned estates. Government and non-government agencies, together with 150 community groups and corporate organisations, assisted the Bush Rangers units achieve collective goals and objectives.

The examples in Appendix 1 demonstrate the diversity of conservation and other community projects undertaken by some of the Bush Rangers units during 2007.

Bush Rangers: equity and diversity

Teamwork and leadership are cornerstones of the Bush Rangers WA program that enable its flexible structure to attract and cater for a diverse range of young people and adult volunteers from school communities across the State.

The inclusive nature of the program affords a rich mix of local solutions to social and environmental challenges while maintaining a State-wide outcomes-based framework.

Of the 47 Bush Ranger units active in 2007, more than half are located in the rural areas of WA. The 20 remaining units are located across the Perth metropolitan area.

There is a strong Indigenous presence participating in units in all regions (230 cadets or 16 per cent) and units in boarding schools in regional areas such as Wongutha Christian Aboriginal Parent-Directed School (CAPS) in Esperance, Coolgardie CAPS and Christian Brothers Agricultural College Tardun attract students who travel vast distances to attend from across the State. See map *Distribution of Bush Rangers attending boarding schools in Western Australia* on page seven.

A total breakdown across the 47 units shows that two-thirds are in Government schools and one-third in private schools.

Table 1. *Distribution of Bush Ranger units across the education sectors*

Year	Govt SIDE	Govt SHS	Govt DHS	Education support	Catholic schools	Independent schools	Remote community schools	Total
1998	-	2	-	-	-	-	-	2
1999	-	7	1	-	2	1	-	11
2000	1	10	5	-	3	3	-	21
2001	1	12	7	-	5	3	-	29
2002	-	13	6	-	4	5	-	28
2003	-	13	5	-	3	6	-	27
2004	-	13	5	1	1	7	-	29
2005	1	13	6	1	4	10	1	36
2006	-	14	7	2	4	11	2	40
2007	-	12	12	2	7	11	3	47

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SIDE – Government School of Isolated and Distance Education

SHS – Senior High School

DHS – District High School

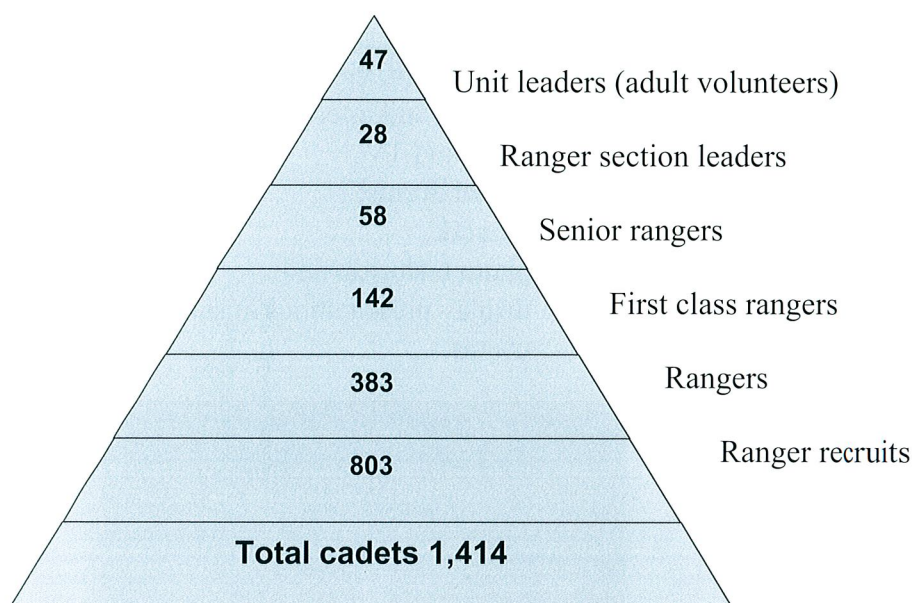


The 2007 figures indicate that four per cent describe their unit as catering to members with a disability, demonstrating increased diversity and equity in the program.

Of the 1,414 Bush Ranger cadets who took part in 2007, there was an even distribution of male and female over both semesters.

	MALE	FEMALE
Semester one	49%	51%
Semester two	51%	49%

Bush Ranger cadets – rank distribution 2007



Wongutha CAPS Bush Rangers.

Communicating about Bush Rangers

Communicating and celebrating personal and collective unit achievements builds resilience and durability into the Bush Rangers WA program. Individual cadets proudly represent their units in the school community and in the field during their activities.

One of the most visible activities that promotes the program and its conservation messages to a wide audience is the Bush Ranger presence at the annual Royal Show in Perth, where cadets actively engage members of the public and represent their connections to Government agencies and community groups committed to environmental conservation.

The DEC Science Division reward camps that Bush Rangers attend arm them with first-hand experience of the issues involved with rehabilitation of habitat for some of the threatened species in the Perup Nature Reserve. Returning to their unit, the cadets re-tell the stories to their peers and write articles for their school newsletters, magazines and local newspapers, thereby reaching audiences beyond their school environment.

Units raise their profile through their involvement in highly significant conservation tasks in their local communities. They also contribute to large-scale projects in the Shark Bay World Heritage Area, by planting habitat for Carnaby's cockatoo and in some large-scale WWF-Australia conservation projects.

Each unit documents its history through articles and imagery. Photographic, video and DVD records of their projects and expeditions are used to create a commemoration DVD for individual members each year. Some units have produced a DVD which is screened to

hundreds of school families as well as new students entering the school.

The varied ways units communicate their activities to the wider community are:

- school newsletters and magazines;
- community newspapers and magazines;
- powerpoint, video and DVD;
- intranet and internet sites;
- radio and TV;
- award events;
- artwork;
- photo histories; and
- display presentations at shows and events.



A John Septimus Roe Community High School Bush Ranger learns about wildlife care.

Professional development

In 2007, professional development opportunities were offered to units, DEC district offices and local communities on an as-needed basis, to provide information about the Bush Rangers program and DEC.

An annual in-service conference for 80 adult volunteers was held at the Point Walter Recreation Camp in Bicton. Evaluation from the participants revealed that outcomes achieved included:

- acknowledgment of the instructors' commitment to the program; consolidation of a network of instructors across WA;
- exchange of information about conservation and community service opportunities;
- gaining new information about the function and potential links with DEC and its partners; and
- gaining knowledge and skills for teambuilding and leadership development.

Annual report 2008

The Bush Ranger annual report for 2008 will follow a new style. A template has been included at Appendix 5 to help collect information for the report. The new style of the report will be discussed at the 2008 unit leaders' in-service conference and more detailed guidelines, including an electronic report template, will then be provided.

A Wongutha CAPS Bush Ranger learns about snake handling.

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Appendix 1 – Examples of conservation and community projects

Bush Ranger Unit	Conservation and other community service projects undertaken	Community involvement
Albany Secondary Education Support Centre	<ul style="list-style-type: none"> • Removal of invasive weeds, landscaping and propagation of remnant seed store for rehabilitation at Coinda Reserve on Mt Melville • Planning and initial construction of a bush tucker garden at the school • Achievement of Senior First Aid certificates • Constructing and placing nesting boxes for rare birds 	Albany City Council and TAFE Local nursery staff St John Ambulance and school nurse DEC's Albany Work Centre
Bunbury Cathedral Grammar School	<ul style="list-style-type: none"> • Building owl nesting boxes • Identification and recording of habitat tree species • Taking part in fire safety and management activities • Paper recycling collection and participating in Clean Up Australia Day • Rehabilitation of a degraded bushland site by weeding and planting endemic species 	Landcare Gelorup Group Leschenault Community Nursery DEC's South West Fire Management Group
Coodanup Community College	<ul style="list-style-type: none"> • Local fungi observation and record keeping for the Beacham Reserve fungi record • Making nest boxes to aid endangered ringtail possum population • Assisting with trapping, recording and releasing local endangered fauna species • Achieving Senior First Aid certificates • Defining walk tracks at Warncliff Forest Mill Camp 	DEC's Swan Region Nature Conservation, Mandurah DEC's Wellington Discovery Centre and Margaret River Eco Discovery Centre St John Ambulance



Emmanuel Christian College Bush Rangers with nesting boxes made at their Katanning camp.

<p>Emmanuel Catholic College</p>	<ul style="list-style-type: none"> • Collecting and recycling more than 6,000 kilograms of paper • Cleaning the college grounds and neighbouring South Kogolup Lake during Clean Up Australia Day • Maintaining existing and new plantings of native vegetation within the school's native garden to enhance the local bird and wildlife habitat • Weeding at Rockingham Environment Centre • Litter collection at Coogee Beach • Planting around Bibra Lake • Fundraising to help disadvantaged youth • Helping DEC at the Perth Royal Show <i>Land Experience</i> display • Maintaining the school herb garden • Transplanting seedlings from previous year's collection to farmland in Katanning • Fundraising to purchase seedlings for planting at Hyden during Tammin Camp • Clean up at Lake Richmond during orientation camp at Naragebup Environmental Centre • Night stalking at Beeliar Regional Park • Planting in Shire of Katanning to attract Carnaby's cockatoo • Salinity and revegetation project at Tammin Educational Centre, planting about 3,500 salt and frost tolerant seedlings on salt-affected farmland • Spotlighting and fauna survey during Tammin Camp • Team building and leadership activities at the Mornington Adventure Camp in Harvey • Taking part in a fire awareness camp with DEC's Fire Management Services • Trapping and monitoring animal populations with DEC rangers at Perup • Achieving St John Senior First Aid certificates • Taking part in orienteering and navigational activities and developing activities for younger cadets 	<p>City of Cockburn Cockburn Wetlands Education Centre Red Cross Street Appeal Landcare Tammin St John Ambulance DEC</p>
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Bush Rangers in an ANZAC Day parade.

Esperance Senior High School	<ul style="list-style-type: none"> • Team building, park maintenance and fire prevention activities at Woody Island recruit camp • Re-mark burnt out walk trail and clean up burnt out campsite at Thomas River • Leadership development and animal trapping at Thomas River leadership camp • Painting marker posts and fence removal at Helms arboretum • Revegetation and removing old steps at Pink Lake Lookout • Understanding and appreciation of the natural and cultural environment through Walpole WOW tour, visit to reptile park, caving trip and aquarium visit • Clean Up Australia Day • Red Shield Appeal • Rabbit proof fencing • Paddy melon picking • Taking part in DEC's <i>Western Shield</i> project • Tree planting at Esperance Lakes, 6 Mile Hill, Pink Lake Lookout, Twilight Beach Dune and Quarry Road • School recycling project • Pine cone collection for the elderly • GPS the Rossitor walk trail after fire damage at Cape Le Grand National Park 	<p>DEC's Esperance, Margaret River and Kirup offices</p> <p>School community</p> <p>Annes Nursery</p> <p>EXPRESS local newspaper Gary Muir – Walpole</p> <p>REDLION Bus and Coach</p> <p>Shire of Esperance and staff</p> <p>Esperance Camping World</p> <p>Esperance Home Care</p>
Gasgoyne Junction Remote Community School	<ul style="list-style-type: none"> • Constructing bird boxes for local placement • Counting night bird life • Taking part in Clean Up Australia Day • Team building and environmental awareness during camp activities at Mt Augustus • Building consideration and respectfulness of cross-cultural land uses and conservation 	<p>Perth Zoo</p> <p>TAFE Student Land Management</p>
Geographe Education Support Centre	<ul style="list-style-type: none"> • Planned and constructed a sensory garden at William Carey Court nursing home centre • Planted and weeded project area at West Street Reserve • Hosted South West Regional Camp at Wharnclyff Mill • Bush Ranger qualities - bush craft and survival, minimal impact, collecting water, edible and non-edible plants • Induction camp at Wharnclyff Mill involved canoeing, bush track riding and working for DEC • Camp at Rottnest Island - involved in coastal clean up and Rottnest Island Authority education activities • Red Cross Appeal • Nominated by Ribbons of Blue for Landcare Award • Received Australia Post grant for community trailer • Sustainable schools project • Coast Care Clean up • Clean Up Australia Day participation • Cadets represented at the Peppies for Possums group • Recycling project – paper brick making for Busselton Senior Citizens Centre 	<p>William Carey Court nursing home</p> <p>Coast Care</p> <p>DEC's Margaret River Work Centre</p> <p>Red Cross</p> <p>Ribbons of Blue</p> <p>Busselton Community Nursery</p> <p>Clean Up Australia</p> <p>Peppies for Possums group Busselton Senior Citizens Centre</p>

John Forrest Senior High School	<ul style="list-style-type: none"> • The ongoing rehabilitation of the remnant bushland site • Water testing at Eric Singleton, Nora Hughes and Brown lakes for nutrients and biodiversity of macro-invertebrates • Undertaking a survey of birds frequenting the lake at Eric Singleton Bird Sanctuary • Monitoring growth of the water filter plants on the islands in Nora Hughes and Brown lakes • Collected 55 kilograms paper for recycling • Propagating seedlings for the school's redevelopment and beautification of lunch areas • Maintaining the school's permaculture garden, including harvesting the worm farm nutrient for watering the gardens • Monitoring air quality and development of a formal report mechanism for data comparisons • Taking part in Clean Up Australia Day • Community service litter collection during excursion to Penguin Island • Participated in a catch, tag and release program of local fauna at Dryandra • Filled in a bush pit and installed bollards to the boundary of car parking areas at Dryandra 	<p>DEC's Rockingham Office</p> <p>DEC's Narrogin District Office</p>
Leonora District High School	<ul style="list-style-type: none"> • Coordination of a school clean up day by supporting staff and other students and distributing and managing resources • Site inspection and preparation of a design for a local land area to be replanted with native species to attract fauna and be developed as a tourist attraction • Commencement of revegetating a large land area to increase the biodiversity and improve aesthetic appeal for the local community • Planning and development of the design of and requirements for native flora propagation for the rehabilitation of mine sites and workings 	<p>Phil Stanley</p> <p>School community</p> <p>Shire of Leonora</p> <p>Staff of Leonora District High School</p>
Mercy College	<ul style="list-style-type: none"> • Trail maintenance and mulching at Perth Hills National Park Centre • Trail maintenance, weeding and mulching at Yanchep National Park • Weeding, tree guard removal, seed collection and beach clean up during camp on Rottnest Island • Weeding at Sorrento beach sand dunes and Porteous Park 	<p>DEC's Perth Hills District Office</p> <p>DEC's Yanchep National Park</p> <p>Rottnest Island Authority</p> <p>Shire of Joondalup</p>
Newton Moore Senior High School	<ul style="list-style-type: none"> • Coastline litter and clean up in south Bunbury region, in particular at Hastie St Beach • Beach and underwater litter collection during Busselton camp • Identifying and cleaning up a beach on Rottnest Island during December camp • Cleaning up Busselton jetty • Participating in ANZAC Day service and led ANZAC parade • Participating in Big Swamp community clean up • Tree planting at Withers Library and Katherine Chauhan Reserve 	<p>DEC and Bunbury Shire</p> <p>Rottnest Island Authority</p>
Phoenix West Vocational College	<ul style="list-style-type: none"> • Monitoring nest boxes and recording their habitation by possums, owls and other native birds and installing new nest boxes at Chapman Valley, Nanson • Planting 750 trees at the Coleseam Conservation Park 	<p>DEC's Geraldton District Office</p>

<p>Warnbro Community High School</p>	<ul style="list-style-type: none"> • Excursion to Wilyabrup Sea Cliffs for track maintenance, rubbish disposal, weeding, cleaning abseiling sites and abseiling • Talk from the fishing school about catch and release awareness and bycatch solutions for local fishing industry • Excursion to Oceanarium – marine diversity and appreciation • Bush Ranger qualities, bush craft and survival – minimal impact, collecting water, edible and non-edible plants, self management in the wilderness • Camp at school for owl watch at Mt Clarence and nesting box construction • Rainbow Jungle at Kalbarri – participation in awareness of birds and their habitat. Volunteer work and injury awareness 	<p>Mike Barnett of Warnbro Beach Road (dune location)</p> <p>Outdoor Discoveries – Brett Huntly</p> <p>DEC's Margaret River Work Centre</p> <p>DEC's Geraldton District Office</p> <p>Kalbarri Oceanarium Kalbarri Rainbow Jungle</p>
<p>Wongutha CAPS</p>	<ul style="list-style-type: none"> • Fencing and tree planting on the new Wongutha Farm, Highland Park • Ongoing spraying weeds and planting of 10,000 trees on the wetland site and two salt affected areas on the main Wongutha Farm • Rehabilitation of burnt school ground area by removing weeds and replacement native tree planting • Planting trees, marking walk trails and rehabilitation activities with station owner while on camp at Morapoi Station • Building and installing markers during a hike from Lucky Bay to Hell Fire Bay • Ongoing rehabilitation of wildlife corridor for honey possums from farm to remnant vegetation • Participating in fire safety training • Achieving first aid certificates • Beach and water safety certificates with subsequent real life rescue of member of public in difficulty out of depth 	<p>DEC's Esperance District Office</p> <p>DEC's Fire Management Services Esperance</p> <p>Fire and Emergency Services Authority</p> <p>Wongutha farmers</p> <p>Land consultant – Neil Summerville</p> <p>St Johns Ambulance</p>



Duncraig Senior High School Bush Ranger learns about reptiles.

Appendix 2 - Bush Rangers unit leaders and year of membership

Bush Rangers unit leaders and year of membership		
Bush Rangers WA unit	Joined	Instructor
Albany Secondary Education Support Centre	July 2006	David Cockburn
Bunbury Cathedral Grammar School	May 2005	Rob Brooksbank
Bunbury Catholic College	May 2006	Keiran Noonan
Canning Vale College	June 2006	Clive Claudius
Carmel Adventist College	February 2007	Norrie Taylor
Christian Brothers College Tardun	May 1999	Jimmie Magoo
Clarkson Community School Education Support Centre	February 2007	Danielle Valuri
Clontarf Aboriginal College	February 2006	Jo Dallimore
Coodanup Community College	March 2005	David Woods
Coolgardie CAPS	June 2000	Trevor Sholson
Corrigin District High School	January 2007	Jackie Bowles
Darkan District High School	February 2007	Maureen Chip
Duncraig Senior High School	October 1998	Darryl Deacon
Ellenbrook Christian College	April 2001	Paul Baumargten
Emmanuel Catholic College	April 2006	Marina Verone
Esperance Senior High School	October 1998	Craig Snow
Gasgoyne Junction Remote Community School	February 2007	Marita Henry
Geographe Education Support Centre	May 2004	Bronwen Worthington
Goldfields Baptist College	June 2001	John Coman
Halls Creek District High School	May 2007	Clinton Wrearing
Jerramungup District High School	April 2006	Katie Warner
John Forrest Senior High School	August 1998	Steve Bauer
John Septimus Roe Anglican Community School	April 1999	Carleen Edwards
Kalbarri Senior High School	May 2000	Craig Addison
Leonora District High School	May 2007	Daniel Wheeler
Katanning Senior High School	September 2001	Phil Hogan
Kolbe Catholic College	March 2006	Carol Henderson
Lake Joondalup Baptist College	January 2007	Kylie Nicholson
Manjimup Senior High School	March 1999	Graeme Gibson
Meekatharra District High School	December 2005	Michael Ostaszewski
Mercy College	February 2006	Amanda Huke
Merredin Senior High School	February 2005	Penny Neilson
Mount Lawley Senior High School	March 1999	Andrew Paul
Mount Magnet District High School	January 2007	Tony Dixon
Mundaring Christian College	February 2003	Nathan de Bruyn
Newman Senior High School	May 2002	Ashley Copping
Newton Moore Senior High School	December 1998	Dave Barbour
Northam District High School	June 2001	Andrew Vallance
Phoenix West Vocational College	July 2005	Bill Trenow
Roleystone District High School	May 2000	Paul Huisman
Rossmoyne Senior High School	August 1998	Wendy Corrick
Thornlie Christian College	May 2004	Wendy Brownhill
Wagin District High School	July 2006	Claire Goodin
Warnbro Community School	April 1999	Darren Russell
Waroona District High School	July 1999	Dion Russell
Wongutha CAPS	July 1999	Gary Paul
Yulga Jinna Remote Community School	January 2007	Greg Grant
TOTAL Bush Rangers WA units = 47		

Appendix 3 - DEC staff partnerships with the Bush Rangers program

CORPORATE SERVICES DIVISION

People Services Branch – Risk Management Section

John Ireland Manager Risk Management

Information Management Branch - Geographical Information Services Section

Robyn Wilson A/Business Development Manager

Mark Laming Project Leader Map Publishing

NATURE CONSERVATION DIVISION

Wildlife Conservation Section

Peter Mawson Principal Zoologist

Matt Swan Wildlife Officer

PARKS AND VISITOR SERVICES DIVISION

Aboriginal Heritage Unit

Koodah Cornwall Cultural and Community Coordinator

Policy Coordination Unit

Tania Donovan Policy Officer

REGIONAL SERVICES DIVISION

FIRE MANAGEMENT SERVICES BRANCH

Bunbury

Peter Henderson Parks and Visitor Services Regional Leader

Kirup Work Centre

Steve Blythe AWU Workers Coordinator

Alex Moylett Senior Fire Training Officer

GOLDFIELDS REGION

Julie Patten Nature Conservation Coordinator

Pia Courtis Wildlife Officer

Anthony Richardson District Conservation Officer

Luke Puertollano Indigenous Trainee Conservation Employee

MIDWEST REGION

Geraldton District

Kevin Marshall District Wildlife Officer

Robert Thorn Reserves Officer

Deanne Pember *Saving our Species* Theme Coordinator
 Leigh and Jackie Courtenay Doolganna Station

Shark Bay District

Mark True Senior Ranger
 Cathy Zwick Senior Ranger
 Colleen Sims Manager Project Eden
 Nicole Noakes Manager Peron Captive Breeding Centre

Monkey Mia Reserve

Emma Adams Monkey Mia Reserve Officer

Moora District - Jurien Bay

Don Williams Pinnacles National Park Ranger

Kalbarri National Park

Mike Paxman and team Senior Ranger

SWAN REGION

Swan Coastal District - Yanchep National Park

John Wheeler and team Senior Ranger

WARREN REGION

Manjimup Work Centre

Zoe Clarke Conservation Officer
 Katie Pettersen National Park Ranger

Frankland District - Walpole Office

Mark Virgo Senior Ranger
 Chris Stewart Parks and Visitor Services Officer
 Karlene Bain Nature Conservation Coordinator
 Staff of the Valley of the Giants – Tree Top Walk

WHEATBELT REGION

Narrogin District

Greg Durell District Manager

Katanning District

Des Plumb Reserves Officer

Yilgarn District Merredin

Paul Blechynden District Manager
 Heather Adamson Land for Wildlife Officer
 David Jolliffe District Nature Conservation Officer

SCIENCE DIVISION

Manjimup Research Centre

Bruce Ward Senior Technical Officer
Graeme Liddelow Senior Technical Officer

STRATEGIC DEVELOPMENT AND CORPORATE AFFAIRS DIVISION

Ron Kawalilak Director, Strategic Development and Corporate Affairs

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Rhianna King A/Programs and Publications Manager
Joanna Moore Communications Officer

Graphic Design Unit

Gooitzen van der Meer Senior Graphic Designer

EcoEducation Section

Elaine Horne Senior Project Officer Education Resources
Alison Hansen Senior Project Officer Bush Rangers WA
Melissa Patterson Project Officer



A Bush Ranger from Kalbarri District High School snorkelling at Shark Bay.

Appendix 4 - Bush Rangers unit statistics

Bush Rangers WA Unit	Unit started	No. of cadets	Volunteer hours
Albany Secondary Education Support Centre	2006	7	3,996
Bunbury Cathedral Grammar School	2005	8	1,240
Bunbury Catholic College	2006	17	1,002
Canning Vale College	2006	39	3,291
Carmel Adventist College	2007	20	*
Christian Brothers College Tardun	1999	44	*
Clarkson Community School Education Support Centre	2007	25	*
Clontarf Aboriginal College	2006	40	*
Coodanup Community School	2005	18	*
Coolgardie CAPS	2000	20	*
Corrigin District High School	2007	11	*
Darkan District High School	2007	12	*
Duncraig Senior High School	1998	93	17,198
Ellenbrook Christian College	2001	46	8,880
Emmanuel Catholic College	2000	59	17,520
Esperance Senior High School	1998	41	13,844
Gascoyne Junction Remote Community School	2007	10	*
Geographe Education Support Centre	2004	22	2,670
Goldfields Baptist College	2001	42	1,434
Halls Creek District High School	2007	10	*
Jerramungup District High School	2006	24	*
John Forrest Senior High School	1998	31	4,480
John Septimus Roe Anglican Community School	1999	64	16,340
Kalbarri Senior High School	2000	17	5,008
Katanning Senior High School	2001	20	1,400
Kolbe Catholic College	2006	18	4,846
Lake Joondalup Baptist College	2007	18	*
Leonora District High School	2007	15	*
Manjimup Senior High School	1999	33	4,258
Meekatharra District High School	2005	20	3,600
Mercy College	2005	36	5,400
Merredin Senior High School	2005	15	3,168
Mount Lawley Senior High School	1999	36	10,769
Mount Magnet District High School	2007	9	*
Mundaring Christian College	2003	80	14,624
Newman Senior High School	2002	18	5,064
Newton Moore Senior High School	1998	54	7,736
Northam District High School	2001	61	12,800
Phoenix West Vocational College	2005	21	5,456
Roleystone District High School	2000	14	*
Rossmoyne Senior High School	1998	34	*
Thornlie Christian College	2004	45	7,440
Wagin District High School	2006	13	1,192
Warnbro Community School	1999	48	1,020
Waroona District High School	1999	57	11,599
Wongutha CAPS	1999	53	28,780
Yulga Jinna Remote Community School	2007	*	*
TOTAL		1414	

* Figures not available

Appendix 5 - Annual report template for 2008

BUSH RANGERS WESTERN AUSTRALIA
A pathway for youth action in biodiversity conservation

ANNUAL REPORT

- 1. Summary of achievements
- 2. Annual plan
- 3. Conservation and community service

Conservation and community service projects	Community involvement
❖	
❖	

4. Other community service

Other community service	Community involvement
❖	
❖	

5. Camps

Name and location of camp	Activity	Outcomes assessed	Term	Community involvement/links
	❖			
	❖			

6. Aspects of leadership and teamwork and the Bush Ranger voice

7. Structure of the unit

Number of cadets	Rank
	❖
	❖
	❖

8. Communicating the unit

School newsletter	School magazine	Newspaper/magazine articles	Powerpoint/video/DVD	Intranet/internet	Radio/TV	Award events	Photo history	Artwork	Displays or talks at shows/events

Other (please state what this is)

9. Inter-unit activities

10. Assessment and achievement records

11. Annual program outcomes achieved against each instructor

12. DEC staff partnerships

13. Conservation group partnerships

14. Inventory

15. Volunteer hours

Item	Hours	Total volunteer hours
Weekly meets		
Camps		
Preparation		

16. WACE achievements

Student name	Year in school	Level of achievement	Date awarded i.e. Semester 1 or Semester 2
		❖	
		❖	
		❖	
		❖	

17. EDWA only units – 10 days cadet leave itemised

Date	Activity - purpose and function	Instructor/s
	❖	
	❖	

18. Management committee meeting minutes

19. Succession plan