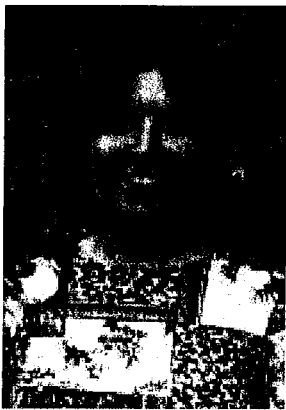




CALM Bush Rangers Annual Report 2004



“The quality of the citizenship displayed by the youth and adult volunteers of the CALM Bush Rangers program, and the constructive partnerships they formed with CALM and their local communities contributed to the success of the program in 2004. The program led to personal growth among CALM Bush Rangers and volunteers, strengthened community partnerships and benefited the environment. As a host organisation, CALM gave exceptional life experiences in the area of biodiversity conservation to a statewide network of highly committed participants.”



Bronwyn Humphreys
Senior Project Officer, CALM Bush Rangers

CALM Bush Rangers Annual Report 2004

Engaging communities with their youth in biodiversity conservation

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Summary of achievements

It's a diverse group of 1300 cadets and adult volunteers who have chosen to volunteer as part of the CALM Bush Rangers program for the betterment and conservation of the nature of Western Australia. In 2004, volunteers of the CALM Bush Rangers program contributed more than 300,000 hours to projects that ranged as much in their diversity as they did in their location.

Conservation community service activities ranged from assisting national park rangers in the gorges of Karijini National Park to truffle harvesting for Gilbert's potoroos in the Albany area. Cadets chose to complete important work on Ramsar wetlands, planted wildlife corridors for Carnaby's black cockatoos in the Wheatbelt, monitored native animal recovery from fox baiting and created homes for birds, bats and possums.

CALM Bush Rangers communicated their accomplishments in a variety of personally meaningful ways. They presented their CALM Bush Rangers unit's accomplishments at major State events, including the Perth Royal Show, features on television and radio programs, in newspapers, school newsletters and magazines, and on intranet and internet sites. Many units have developed its own creative banners that depict the essence and character of its team.

Since 1998, when the program started, CALM Bush Rangers cadets have played an increasingly influential part in shaping and personalising their units. In 2004, senior cadets took on a range of roles that assisted with the success of their unit. They helped to organise expeditions and excursions, lead the unit in activities, wrote articles, maintained a website and represented their unit and the program at functions. Senior cadets are continually returning in their adulthood as volunteer instructors.

The dedication of the cadets is demonstrated on

a daily basis and a series of reward events have been developed to formally recognise the efforts of cadets. In 2004, reward events included the CALM's Fire Management Services fire control burn camp at Dwellingup, CALM's Science Division native animal monitoring at Perup Nature Reserve, CALM's Geographic Information System (GIS) section's conservation project support, the Shark Bay World Heritage Area experience, CALM's Leeuwin Ocean Adventure Leadership Course and regional camps at Norseman in the Goldfields, Perup Nature Reserve in the south-west and in Perth.

More than 90 CALM staff members ensured that units were linked to meaningful projects on CALM's estate and private land. CALM staff and local community members sat on CALM Bush Rangers management committees and helped units with their camps and expeditions.

Units have been recognised for their accomplishments within their school and the wider community and formally in the 2004 WA Youth Awards as finalists and recipients in the Citizenship and Environment categories.

The CALM Bush Rangers program has brought a positive change within CALM, within local communities and for the young people involved in the program. CALM staff members report that they enjoy sharing their expertise with committed youths of the program. Staff members have also seen the value of the CALM Bush Rangers program as a resource and have asked units to assist them achieve their community involvement and local works objectives. Local community members have reported their positive experiences of linking with CALM Bush Rangers as part of a shared conservation purpose. The young people report that the CALM Bush Rangers program provides them with a program that has resulted in their confidence elevated, which they haven't seen before in themselves or their peers. The confidence and shared

conservation experiences gained each year are attributed to providing these young people with a strong sense of purpose and belonging.

By the end of 2004, the strength and credentials of the program were such that Cadets WA approved a 25 per cent increase in the number of CALM Bush Rangers units across WA to start 2005. The successful partnership between CALM and bodies such as Cadets WA and the education sector has accumulated a monetary and in-kind wealth of exceptional opportunities for youth, exclusive to WA.

Background

Since its inception in 1998, the CALM Bush Rangers program has been a host organisation in Cadets WA. The program fosters opportunities to gain competence and confidence in life skills such as teamwork and leadership in the context of a biodiversity conservation ethic.

Two thirds of the CALM Bush Rangers units are from government schools, 16 are in rural areas and 13 are in the Perth metropolitan area.

The number of school communities that want to partner with the program has continued to grow. Cadets WA has approved a 25 per cent increase in the number of approved units to start in 2005. CALM Bush Rangers come from all bioregions of the State. The following two maps illustrate the location of the units as well as the location of the communities the CALM Bush Rangers who attend boarding school come from.

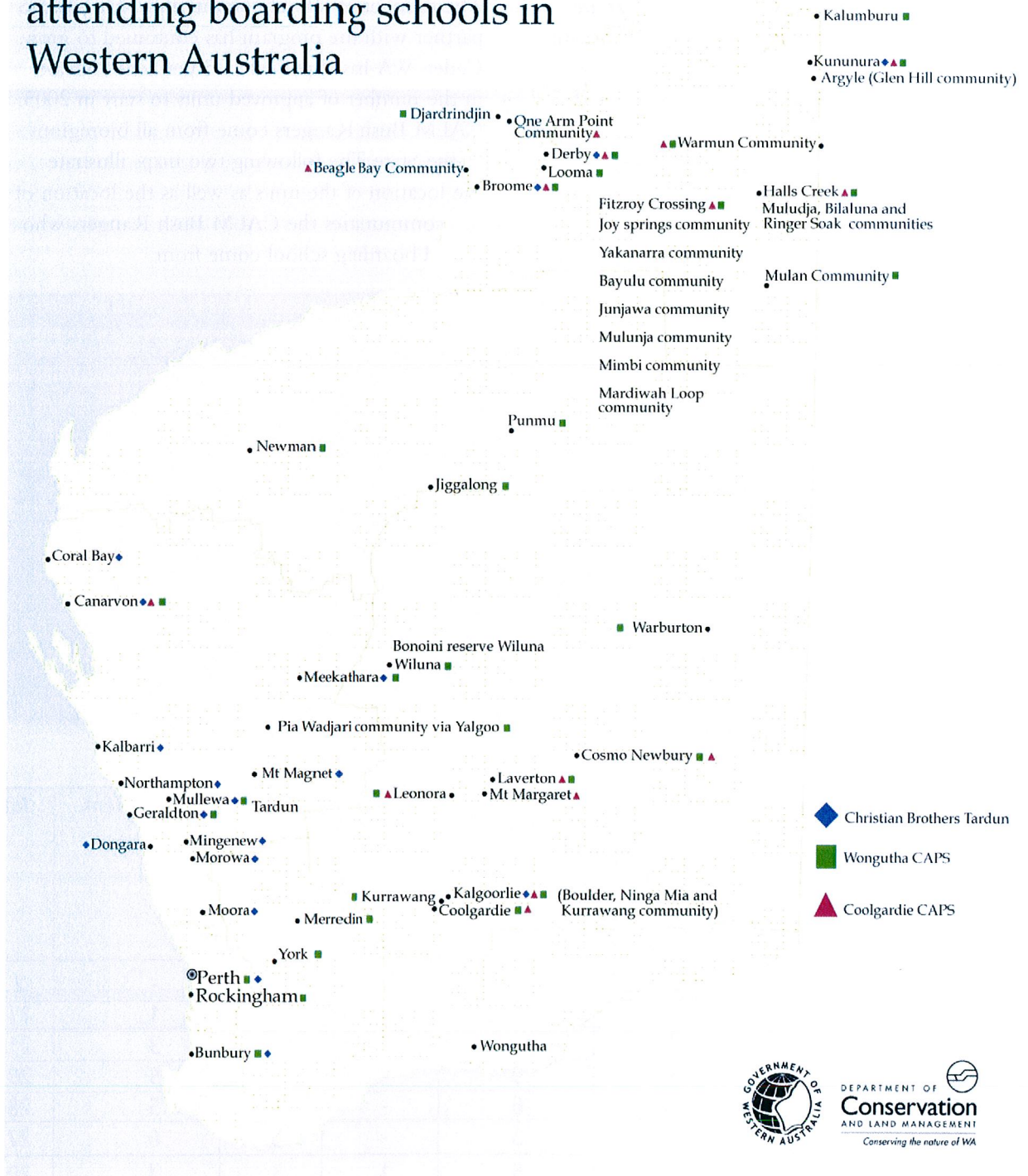


CALM Bush Rangers enjoy the view at Shark Bay.

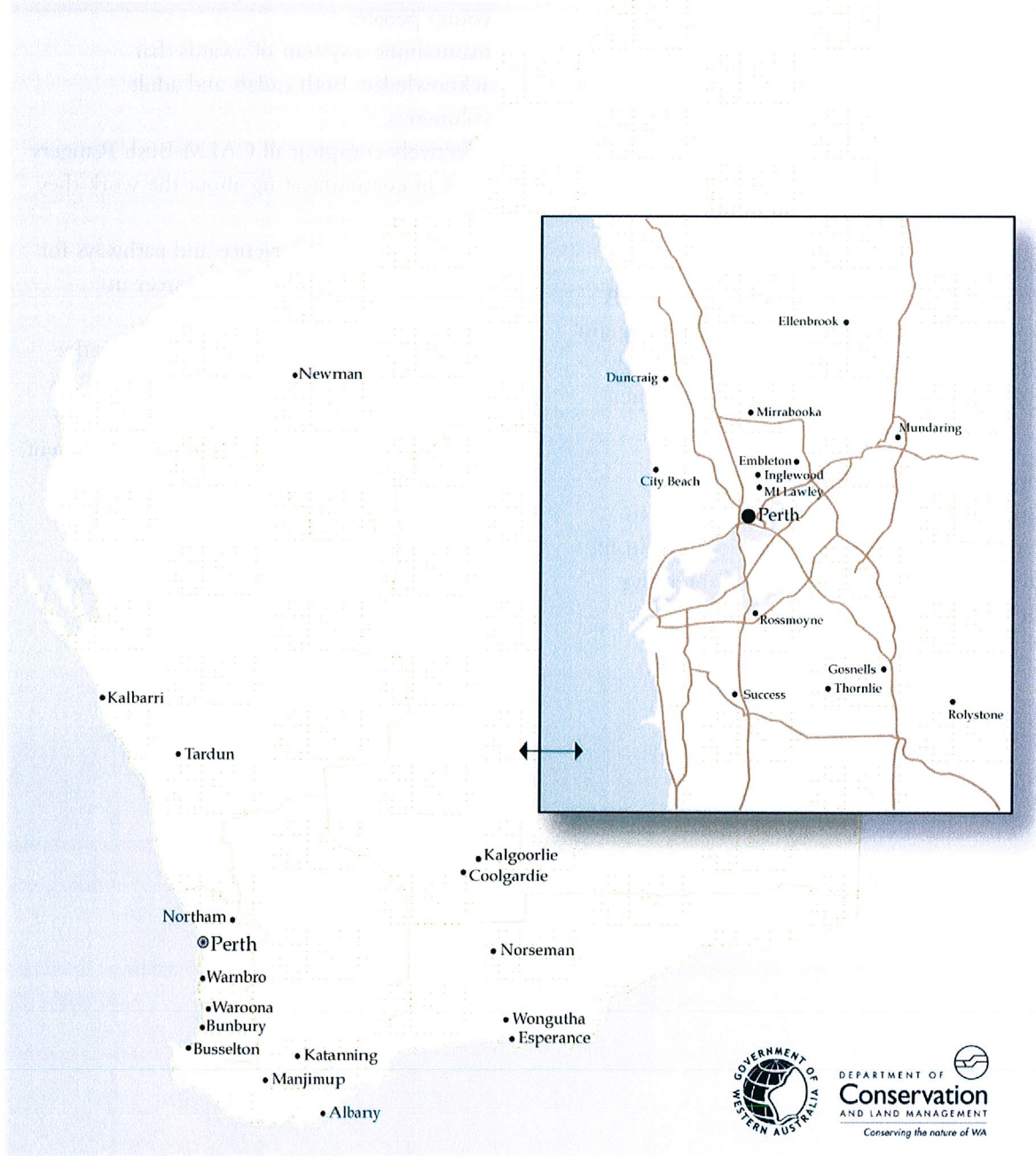
Year	Government School of Isolated and Distance Education	Government Senior High Schools	Government District High Schools	Education Support	Catholic	Independent	Total
1998	-	2	-	-	-	-	2
1999	-	7	1	-	2	1	11
2000	1	10	5	-	3	3	21
2001	1	10	9	-	5	5	29
2002	-	13	6	-	4	5	28
2003	-	13	5	-	3	6	27
2004	-	13	5	1	3	7	29

Table 1.1 Distribution of CALM Bush Ranger Units across the education sector

2004 Distribution of CALM Bush Rangers attending boarding schools in Western Australia



2004 Location of CALM Bush Ranger Units in Western Australia



CALM role as a host organisation

CALM is a host organisation within the Cadets WA program and invites membership from secondary school-aged people across WA. The CALM Bush Rangers program is one of the ways the agency achieves its vision of working with the community to conserve the nature of WA. This is achieved in all bioregions and with local community participation.

The program has enabled the messages of conservation to reach a wide variety of the WA community by direct involvement in the program and/or by the many effective ways these youth participants communicate about the work they do.

The diverse and comprehensive range of opportunities offered by CALM's program to youth to help them achieve their potential in life skill developments, conservation volunteering and/or careers include:

- engaging local communities with their youth in biodiversity conservation;
- providing reward experiences for committed young people;
- maintaining a system of awards that acknowledges both cadets and adult volunteers;
- effectively engaging all CALM Bush Rangers units in communicating about the work they do;
- providing work experience and pathways for cadets who wish to pursue a career in conservation;
- providing professional development for the adult volunteers at the annual in-service, as well as providing opportunities for them to experience the way CALM works in different divisions; and
- encouraging more than 90 CALM staff members to partner with CALM Bush Rangers units and embrace the advantages brought by these partnerships.



Alan Rose, Senior Ranger, Cape Arid National Park, South Coast region invites Esperance Senior High School CALM Bush Rangers to be involved in *Western Shield* native animal monitoring.

CALM Bush Rangers reward experiences

The reward experiences that were offered in 2004 by the CALM Bush Rangers program display the richness of the program and depth of commitment by a good cross section of CALM staff. These practical reward experiences included:

- a Fire Management Services prescribed burn at Dwellingup;
- monitoring the effect of fox baiting on native animal populations at Perup Nature Reserve with CALM's Science Division;
- CALM's Geographic Information Systems training and conservation project support;
- an expedition to the Shark Bay World Heritage Area;
- CALM Leeuwin Leadership Ocean Adventure week-long sail;
- helping with the Perth Royal Show's 'Land Experience' display; and
- regional camps at Bromus Day in CALM's Goldfields/Esperance Region, Perup Nature Reserve in CALM's South West Region and Mirrabooka in the Perth metropolitan region.

Cadets who took part in these reward experiences communicated the messages about biodiversity conservation that CALM staff gave to them to the rest of their unit and school community.

Cadets also communicated within their newly developed social networks, and kept in contact with members of other units throughout WA. They maintained contact by email and even caught up after the events. Cadets reported that these experiences helped them to gain confidence and helped to create or confirm volunteer and/or career aspirations.

Fire Management Services control burn at Dwellingup

Twelve of the most committed cadets from six units completed the nationally accredited 'Basic

Bush Fire Awareness' course at Dwellingup in 2004. This is the sixth year this reward has been offered to the program by CALM's Fire Management Services section. An estimated 90 cadets and instructors have enjoyed the two-day event, which included a theory and practical test, activities in health and fitness for the fire line and planning and conducting a prescribed burn at the Forest Heritage Centre.

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

Since 1999, 120 cadets and instructors have experienced hands-on field monitoring of the effects of fox baiting on native animal populations at the Perup Nature Reserve by CALM's Science Division staff. Baiting traps, recording information, using GPS units, completing safe and effective native animal handling and analysing results are all part of these spring and autumn events provided by CALM's expert Science Division staff each year.

CALM Geographic Information Systems (GIS) section, GIS training and conservation project support

CALM's GIS section has developed a new and exciting partnership with the CALM Bush Rangers program. Having gained an enormous in kind sponsorship from software company, Environmental Systems Research Institute (ESRI), for free licenses for ArcView software for all participating cadets and instructors, CALM's GIS section has developed and implemented training programs and supplied resource data to all CALM Bush Rangers units. This reward is designed to assist cadets who are ready, and able, to use this application for communicating and recording in their projects.

An expedition to Shark Bay World Heritage Area

Each April and October, staff in CALM's science, national parks and visitor interpretation divisions

in the Shark Bay World Heritage Area provide cadets with unique experiences. CALM Bush Rangers cadets gain practical experience with bilby, and other rare native animal, breeding programs, assist national park staff with manual work in the park and help feed the dolphins at Monkey Mia. This reward combines the exceptional with the every-day work of staff in these areas.

CALM-Leeuwin cadet leadership week sail

In 2004, 42 cadets left Perth on the CALM/Leeuwin Leadership Ocean Adventure for a week-long reward. Now in its sixth year, about 250 of our most dedicated cadets have completed this reward.

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

In 2004, 80 CALM Bush Rangers assisted with the conservation displays at the Perth Royal Show by undertaking a range of tasks, including making conservation kites, tallying visitor numbers, helping visitors make their own 'conservation' badges, working with mascot 'Captain Cleanup' on the main oval and providing general maintenance to the display area. Cadets have offered this community service for the past six years and have contributed an estimated 2500 volunteer hours.

Regional camp – Goldfields/Esperance units at Bromus Dam

Eighty CALM Bush Rangers experienced an exceptional reward camp at Bromus Dam, near Norseman. Cadets increased their competence in minimal-impact practice, bush craft and survival, bush camp skills, first aid scenarios and took part in a team building drumming performance and other team games.

Regional Camp – south-west units at Perup Nature Reserve

Perup Nature Reserve played host to the inaugural 2004 South West Region Camp. Seven

units in CALM's South West Region took part and CALM's Manjimup office provided the resources that enabled the cadets to plant more than 500 trees around the new buildings at Perup. CALM's Fire Management Services in Manjimup gave the cadets an opportunity to develop practical experience with fire suppressants and they completed firebreaks. Staff from CALM's Manjimup Science Division led the cadets on a night spotlight hoping to find the rare ringtail possums. The popular drumming team performance was a highlight in the final evening.

Regional Camp – Mirrabooka in Perth's metropolitan region

Metropolitan units completed the restoration of conservation areas at Kondoola Open Space, for the City of Stirling, as their contribution to the local environment. Testing their physical fitness was an important aspect of the camp as cadets learnt about the need for fit team players in conservation fieldwork – especially on the bushfire line. CALM's People Services Division provided expertise and resources for this exercise. Learning about safety in nature was another exercise made fun as cadets competed to navigate a bushland course at John Septimus Roe Anglican Community School while discovering the answers to conservation clues. Senior rangers organised many of the team building events for this camp.

Conservation and other community service – our collective role

In 2004, the 29 CALM Bush Rangers units engaged in a variety of conservation and other community service activities at their school, in their local community and on their expeditions. The types of projects undertaken were determined by what the units were interested in, practical and logistical considerations and the availability of human and other resources. These projects were undertaken in and on

marine and terrestrial areas managed by CALM and other privately owned estates. More than 90 CALM staff and 150 community groups and agencies assisted units achieve their objectives. In 2004, 1300 CALM Bush Rangers and Instructors completed 300,000 volunteer hours under the program.

Projects are highlighted in the table overleaf to show the diversity of the projects conducted.



Cherie Kemp, *Land for Wildlife* Officer, assisting the Geographe CALM Bush Rangers prepare for the Great Marsupial Night Stalk.



A Wongutha CALM Bush Rangers cadet on a survival exercise at Bromus Dam.

CALM BR unit	Conservation and other community service projects undertaken	Community involvement
<p>Albany Senior High School</p>	<ul style="list-style-type: none"> • Tree planting at Perup Ecology Centre. • Tree planting at Lake Seppings. • Weeding, brushing, repairing <i>Land for Wildlife</i> site at Albany SHS. • Weeding Albany SHS's grounds. • Litter control at Albany SHS. • Bird monitoring at Lake Seppings with the City of Albany and the Friends of Lake Seppings. • Spreading rust fungus along Lake Pen Walk, Kalgan River, with the City of Albany. • Rehabilitating <i>Land for Wildlife</i> site at Albany SHS. • Stencilling stormwater drains and surveying public knowledge of stormwater. • Collecting truffles for Gilbert's potoroos. • Preparing presentation for Albany Sustainability Conference. • Entered the Lord of the Weeds competition. • Participating in the Waste Wise recycling bin collection program for schools. • Assisting at the sixth Annual Environment Festival and Life Long Learning Conference. • Assisting at Albany Agricultural Show. • Assisting at Albany Wildflower Society Exhibition. • Assisting at Albany Museum holiday activities. 	<p>School community Albany Agricultural Society Albany Community Environment Centre City of Albany Western Australian Museum, Albany Albany Wildflower Society Alice Keen, Wildlife Carer Bushcarers Group Albany Forest Products Commission Friends of Lake Seppings Integrated Tree Cropping Department of Environment Greenskills <i>Land for Wildlife</i> Western Ground Parrot Recovery Project Progress Associations of Lower King, Lower Kalgan and South Coast Wildflower Society of WA CALM Albany CALM GIS section CALM's State Operational Headquarters, Kensington CALM Narrogin District CALM Science Division</p>
<p>Chisholm Catholic College</p>	<ul style="list-style-type: none"> • Propagating seeds that are endemic to Katanning for Carnaby's black cockatoos. • Representing CALM Bush Rangers on the reference group of the WA Museum. • Collecting seeds of wetland plants. • Identifying wetland birds. • Mulching, planting, bagging and weeding at Chisholm stream the native area at Chisholm Catholic College, at Eric Singleton bird sanctuary in Bayswater, at Hinds Reserve on the Swan River and Lightning Swamp in Morley, Brown's Lake. • Coastal environmental work in Margaret River. • Guest speakers for the fifteenth anniversary of Ribbons of Blue. • Open space rehabilitation during the Perth Regional Camp. • Creating a plant nursery at the school. • The unit was featured on Channel 9's <i>Postcards WA</i>. • Conservation work at The Hills Discovery Centre. 	<p>School community Baigup Conservation Group Bayswater Integrated Catchment Eric Singleton Bird Sanctuary Karakamia Wildlife Sanctuary Ribbons of Blue WA Museum CALM Bunbury office CALM's GIS section The Hills Forest Discovery Centre CALM's Kalbarri office CALM's Katanning office CALM's State Operational Headquarters, Kensington CALM's Margaret River work centre</p>

CALM BR unit	Conservation and other community service projects undertaken	Community involvement
Coolgardie CAPS (Christian and Parent School)	<ul style="list-style-type: none"> • Weeding paddy melons at Nature and Agriculture Re-habitation Association (NARA) Community Wildlife Park • Cleaning up Rowles Lagoon. • Assessing sites for a future trail project at Munglinup Camp. • Lucky Bay – Cape Le Grand National Park boardwalk recovery and maintenance. 	<p>School community NARA Community Wildlife Park CALM's Bunbury office CALM's Esperance office CALM's GIS section CALM's Kalgoorlie office CALM's State Operational Headquarters, Kensington</p>
City Beach Senior High School	<ul style="list-style-type: none"> • Carrying out conservation rehabilitation work, including weeding, planting, mulching, constructing fencing, and trimming at Bold Park. • Margaret River cleanup. • School environmental mosaic in school foyer. • Bird monitoring at Herdsman Lake Regional Park. 	<p>School community Botanic Parks and Gardens Authority (Bold Park) Leeuwin Leadership Ocean Adventure St John Ambulance CALM's GIS section CALM's State Operational Headquarters, Kensington CALM's Margaret River work centre</p>
Duncraig Senior High School	<ul style="list-style-type: none"> • Taking part in Clean Up Australia Day. • Duncraig School bushland management – weeding, tree planting, rubbish removal. • Marine Conservation at Hillarys Boat Harbour. • Salinity action research. • Activities supporting World Environment Day. • Sponsoring children in Africa and Asia through cadet pledges. 	<p>School community Clean Up Australia Day Hillarys Boat Harbor Department of Environment Men of the Trees WA Million Trees Program Sponsor children – World Vision World Environment Day – CALM's Bunbury office</p>

CALM BR unit	Conservation and other community service projects undertaken	Community involvement
<p>Ellenbrook Christian College</p>	<ul style="list-style-type: none"> • Community service at local retirement home. • Planting trees at Yanchep National Park. • Assisting the Rottnest Island Authority at Rottnest Island. • Surveying flora and fauna. • Assisting with the Perth Royal Show. • Rehabilitating open space at the South west Regional Camp. • Building nesting boxes for owls. 	<p>School community Ellenbrook Retirement Home Rottnest Island Authority RSPCA Whiteman Park CALM's Bunbury office CALM's GIS section CALM's State Operational Headquarters, Kensington Yanchep National Park</p>
<p>Emmanuel Catholic College</p>	<ul style="list-style-type: none"> • Constructing and maintaining worm farms. • Clean Up Australia Day at Penguin Island. • Taking part in the City of Cockburn's ANZAC Day Parade. • Maintaining the school's native garden. • Placement in the Epic Energy Biodiversity Conservation Campaigners challenge for their work on Ramsar area – Thomsons Lake. • Planting 150 trees at Thomsons Lake to link it with Kogolup Lake to give cover to the migrating oblong turtle. • Monitoring the water and surrounds of Thomsons Lake. • Maintaining the turtle tunnels. • Propagating <i>Casurina obesa</i> for planting on farms for wildlife corridors for the Carnaby's black cockatoos • Weeding at Yanchep National Park. • Weeding at Naragebup Rockingham Regional Environment Centre. • Cleanup beach at Woodman Point Regional Park and Coogee Beach. • Planting 200 trees at Yanchep National Park. • Assisting at Perth Royal Show exhibit. • Collecting termites for zoo animal food. • Propagating native plants for the school. • Creating a herbaria of the school remnant bushland. • Trapping chuditch, woylies and possums at Perup Nature Reserve as part of <i>Western Shield</i>. 	<p>School community AQWA Cities of Armadale and Gosnells Armadale Reptile Park Australian Red Cross Cockburn City Council Cockburn Wetlands Education Centre Local landcare group Leeuwin Leadership Ocean Adventure Million Trees Program Native Ark - Bibra Lake Southern Lakes Drainage Scheme CALM's Bunbury office CALM's Fire Management Services section CALM's GIS section CALM's Katanning office CALM's State Operational Headquarters, Kensington CALM's Regional Parks section CALM's Science Division CALM's Wildlife Conservation Section</p>

CALM BR unit	Conservation and other community service projects undertaken	Community involvement
Esperance Senior High School	<ul style="list-style-type: none"> • Clean Up Australia Day. • Salvation Army Red Shield Appeal. • Community tree planting. • Pine cone collection for elderly people. • Yellow fish program. • School recycling. • Fence rehabilitation. • Marine photography. • Erosion prevention, dune rehabilitation, constructing sign posts, fencing, track clearing in Cape Le Grand National Park. • Rock wallaby search. • Bridal creeper project. • Western Shield trapping at Cape Arid National Park. • Shark Lake walktrail maintenance. • Design canoe trail on Ramsar lake. • Fundraising for local charities. • Bag Smart campaign. 	<p>School community Clean Up Australia Day Committee RSL – Esperance Salvation Army St John Ambulance Department of Fisheries Surf Lifesaving The Uniting Church CALM's Bunbury office CALM's Esperance District office CALM's GIS section CALM's State Operational Headquarters, Kensington</p>
Geographe Education Support Centre	<ul style="list-style-type: none"> • Perup Regional Camp tree planting. • Wharndcliffe Mill camp tree planting, brush collecting, weeding arem lilies. • Yanchep National Park camp seed collecting, tree planting. • Guest speakers for the fifteenth anniversary of Ribbons of Blue. • Management (survey of local residents, seed collecting and propagation) and presentation of a local reserve for the Shire of Busselton. • Propagation at the Landcare nursery. • Bridal creeper rust project. • Night stalk with the Perth Zoo around Ambergate Reserve. • Australian Red Cross Street Appeal. • Seed collecting from sand dune plants. • Radio interview with ABC radio about CALM Bush Rangers. • Library display about CALM Bush Rangers. • Shopping centre display about CALM Bush Rangers. • Weed Busters Week weeding. 	<p>School community Busselton Landcare Busselton Weed Busters Community Nursery Group Leeuwin Catchment Group Local Nyoongar leaders Australian Red Cross Ribbons of Blue Shire of Busselton St John Ambulance WA Yacht Charters CALM's Bunbury office CALM's Busselton work centre CALM's Fire Management Services section CALM's GIS section CALM's State Operational Headquarters, Kensington CALM's Manjimup work centre CALM's Margaret River work centre CALM's Science Division</p>

CALM BR unit	Conservation and other community service projects undertaken	Community involvement
<p>Goldfields Baptist College</p>	<ul style="list-style-type: none"> • Rehabilitating Burra Rocks after a fire, including reducing paddy melon, caltrop, scotch thistle and Afghan thistle infestation and general cleanup. • Boulder cemetery eradication of noxious weed <i>Orbea variegata</i>. • Salvation Army Red Shield Appeal. • The Eyre Bird Observatory – bird observation. • School tidy day in May. 	<p>School community Eyre Bird Observatory Kalgoorlie/Boulder Landcare Group Leeuwin Leadership Ocean Adventure Salvation Army St John Ambulance CALM's Bunbury office CALM's GIS section CALM's Kalgoorlie office CALM's State Operational Headquarters, Kensington</p>
<p>Gosnells Senior High School</p>	<ul style="list-style-type: none"> • Propagating, planting, mulching and weeding at Mary Carol Park. • 5000 trees planted in the Kokendin Catchment for salinity action. • Clearing firebreaks, eradicating weeds and rubbish collection at Harry Waring Reserve. • Yellow fish project drain stencilling. • Paper recycling. • Water quality monitoring and macro-invertebrate monitoring with Armadale/Gosnells Landcare group. • Hillside Farm wetland rehabilitation including planting endemic species and weed eradication. • Construction and placement of bird boxes for hollow dependent avian fauna. • Monitoring bird species. • Mapping bird nests. • Assisting with interpretative displays for Hillside Farm events. • Maintenance of shade house. • Terrestrial invertebrate monitoring. • Karakamia Wildlife Sanctuary – mulching, track maintenance and pot preparation for seeding. • Yanchep National Park – weeding cape tulip. • Assisting CALM in the Shark Bay World Heritage area including homestead maintenance, de-fencing, cleaning breeding pens, assisting dolphin feeds at Monkey Mia. • <i>Western Shield</i> trapping of chuditch, woylie, possums at Perup Nature Reserve. 	<p>School community Cities of Armadale and Gosnells Beverly Kokendin Catchment Group Friends of Mary Carol Reserve Harry Wearing Nature Reserve Shark Bay World Heritage Area Armadale/Gosnells Landcare Group Leeuwin Leadership Ocean Adventure Ribbons of Blue CALM's Bunbury office CALM's Fire Management Services CALM's GIS section CALM's State Operational Headquarters, Kensington CALM's Science Division CALM's Shark Bay District Yanchep National Park</p>

CALM BR unit	Conservation and other community service projects undertaken	Community involvement
John Forrest Senior High School	<ul style="list-style-type: none"> • Maintenance of the Eric Singleton Bird Hide. • Water testing at Eric Singleton Bird Sanctuary. • Water monitoring and planting at Nora Hughes Lake and Brown Lake Morley. • Paper recycling. • Seed propagation for planting in the salt-affected area in Tammin. • Hosting a visit for the Director General of the Department of Education and Training, Paul Albert. • Weeding and planting in school's remnant bushland. • Earthworm pens to recycle waste from school canteen. • Chook farm to recycle waste from school canteen. • Clean Up Australia Day. • Taking part in school's ANZAC Day parade. • Monitoring frogs, owls and other native animals at Dryandra 	<p>School community Clean Up Australia Day Committee RSL Channel 7 Perth Zoo CALM's GIS section CALM's State Operations Headquarters, Kensington</p>
John Septimus Roe Anglican Community School	<ul style="list-style-type: none"> • Assisting at the Fauna Rehabilitation Foundation at Malaga. • Trialling worksheets and providing feedback for the Western Australia Marine Community Monitoring Program. • Assisting with the Perth Royal Show. • Assisting with school functions. • Completing Telethon Toyota Trek to Kalgoorlie. • Hosting the Swan Regional Camp. • Community work in Koondoola Open Space. • <i>Western Shield</i> trapping of chuditch, woylies, possums at Perup Nature Reserve 	<p>School community CALM's GIS section CALM's State Operations Headquarters, Kensington CALM's Science Division</p>
Katanning Senior High School	<ul style="list-style-type: none"> • Repotting seedlings for wildlife corridor program. • Police Pools invertebrate investigation. • Clean up at Police Pools. • Orchid monitoring at Katanning. • Creating homes for native animals and constructing bird boxes. • Tree planting food source and habitat for Carnaby's black cockatoos at Badgebup. • <i>Western Shield</i> trapping of chuditch, woylies and possums at Perup Nature Reserve. • Monitoring bird boxes set in trees in 2003. • Establishing plant nursery at Katanning Primary School. • Assisting CALM staff at the Stirling Ranges. 	<p>School community CALM's Albany work centre CALM's GIS section CALM's State Operations Headquarters, Kensington CALM Katanning</p>

CALM BR unit	Conservation and other community service projects undertaken	Community involvement
Kalbarri District High School	<ul style="list-style-type: none"> • Clean Up Australia Day beach clean up. • Woylie release into Kalbarri National Park. • Tree planting at Chinaman's Point. • <i>Western Shield</i> trapping at Kalbarri National Park. • Cleaning captive breeding pens in the Shark Bay World Heritage area. • Marching in the Kalbarri ANZAC Day parade. • Kalbarri cliffs coastal trail restoration. • Recycling paper into fire bricks at school. 	<p>School community St John Ambulance RSL CALM's Bunbury office CALM's GIS section CALM's State Operations Headquarters, Kensington CALM's Mid-West Region</p>
Manjimup Senior High School	<ul style="list-style-type: none"> • Faunadale Nature Reserve project – identifying fauna species and their distributions using Sheffield traps and pit traps and identifying weeds (black wattle), density and distribution using GPS. • Assisting in the King Jarrah recreation project, including building barbecue tables, installing barbecue railing around the picnic area, cleaning and maintenance work and maintaining the bicycle track and interpretative walktrail, installing nest box transects and trapping transects throughout reserve. • Perup Ecology Centre maintenance • Assisting in the ANZAC Day service • Assisting with the Deanill Heritage Trail Committee's project. • Assisting school events such as school graduation. • Responsibility flying State and Aboriginal flags at school. 	<p>School community Deanhill Heritage Trail Committee CALM's Bunbury office CALM's GIS section CALM's State Operations Headquarters, Kensington CALM Manjimup</p>
Mt Lawley Senior High School	<ul style="list-style-type: none"> • Tree and sedge planting at Moore River. • Ribbons of Blue Water Quality monitoring program. • Beach clean up at Contos Beach. • Beach clean up in Francois Peron National Park. • Dismantled rock cairns in Cape Range National Park. • Assisting with the Landcare exhibit at the Perth Royal Show. 	<p>School community WA Gould League Rotary Club of Mount Lawley CALM's Bunbury office CALM's GIS section CALM's State Operational Headquarters, Kensington</p>

CALM BR unit	Conservation and other community service projects undertaken	Community involvement
Mundaring Christian College	<ul style="list-style-type: none"> • Creating nesting boxes for possums. • Assisting at Parkerville Children's Home. • Munda Biddi bike project. • Acting as guides on 'Trek the Trail' in Mundaring. • Tree planting at The Hills Forest Discovery Centre. 	<p>School community Parkerville Children's Home CALM's Bunbury office CALM's GIS section CALM's State Operational Headquarters, Kensington</p>
Norseman District High School	<ul style="list-style-type: none"> • Peak Charles National Park clean up. • Clean up of Cherry Island. • Assisting with ANZAC Day at Norseman. • Recycling paper at school. • Assisting with school repairs and rubbish bins. • Assisting with the maintenance of a BMX track. 	<p>School community CALM's Bunbury office CALM's GIS section CALM's State Operational Headquarters, Kensington CALM Esperance</p>
Northam Senior High School	<ul style="list-style-type: none"> • Over the past four years, Northam Bush Rangers have planted more than 100,000 trees along the Avon River to prevent erosion. • Site coordination at the Avon River in Northam as part of Clean Up Australia Day. • Planting 100,00 trees for salinity action at Grass Valley. • Salt watch training and monitoring for Ribbons of Blue registered site at Northam Weir. • Macro-invertebrate sampling at Avon Weir. • Assisting the animal nursery at the Northam Agricultural Show. • Producing artwork to raise awareness of the cadets at Northam High School and in the community. • Recycling at school, vermiculture investigation. • Mulching, preparing and maintaining a native garden at school. • Open space rehabilitation during Perth Regional Camp. 	<p>School community Clean Up Australia Day Committee Northam Agricultural Show CALM's Bunbury office CALM's GIS section CALM's State Operational Headquarters, Kensington</p>
Newton Moore Senior High School	<ul style="list-style-type: none"> • Maidens Reserve rehabilitation, laying brush for erosion control. • Planting tuarts. • Rottnest Island beach clean up and tree planting. • Taking part in the ANZAC Day parade. • Making fish sculptures for fish awareness. 	<p>School community CALM's Bunbury office CALM's GIS section CALM's State Operational Headquarters, Kensington</p>

CALM BR unit	Conservation and other community service projects undertaken	Community involvement
Newman Senior High School	<ul style="list-style-type: none"> • Restoring bushland at Newman Senior High School. • Recycling drive at school. • Assisting Karijini National Park rangers with park maintenance. • Newman SHS native garden maintenance. • Researching natal redtop weed infestation. • Assisting with echidna Earthwatch search on Kangaroo Island. • Searching for the rare night parrot. • Assisting at the Newman Community Expo. • Taking part in the inaugural Cadets WA Summit. • Partnering with Royal Flying Doctor Service with its visits to Newman. • Assisting Newman opera <i>La Boheme</i>. 	<p>School community BHP Billiton Royal Flying Doctor Service CALM's Bunbury office CALM's GIS section CALM's State Operational Headquarters, Kensington</p>
Rossmoyne Senior High School	<ul style="list-style-type: none"> • Rehabilitation work in Bull Creek Reserve, including weeding and planting native trees. • Working with Canning River Residents Environment Protection Association (CREEPA) in weeding, planting reeds and sedges. • Developing a management plan with Melville City Council for Bull Creek. • Environmental painting for Bannister Creek Catchment Group. • Clean Up Australia Day at the Bull Creek Reserve. • Planting trees at Bull Creek Reserve on Arbor Day. • Supplying giraffes at the Perth Zoo with the weed Sydney wattle. • Paper recycling at the school. • Growing native plants for Bull Creek Reserve in the school's shade house. • Assisting at the Perth Royal Show's Landcare Exhibit. • Maintaining an environmental notice board at the school. • Assisting Stirling Range rangers with weed control. • Assisting farmers in the Stirling area with planting sandalwood trees for salinity action. • Assisting at The Hills Forest Discovery Centre on World Environment Day. • Western Shield trapping of chuditch, woylie, possums at Perup Nature Reserve. • Cleaning captive breeding pens in the Shark Bay World Heritage area. • Seed collecting for Rottnest Island Authority. • Assisting at Naragebup Rockingham Regional Environment Centre. • Clean up around Lake Richmond. • Identification of birds at North Lake. • Mentoring the Language Integration and Cultural group (LinC) at Rossmoyne SHS. 	<p>School community Bibra Lake Wildlife Centre CREEPA Local animal carers Clean Up Australia Day Committee Environmental Protection Authority Kanyana Wildlife Rehabilitation Centre Melville City Council Perth Zoo Cohuna Wildlife Sanctuary South Perth Council CALM's Bunbury office CALM's GIS section CALM's State Operational Headquarters, Kensington</p>

CALM BR unit	Conservation and other community service projects undertaken	Community involvement
Roleystone District High School	<ul style="list-style-type: none"> • <i>Western Shield</i> trapping of chuditch, woylies and possums at Perup Nature Reserve. • Assisting CALM at the Shark Bay World Heritage area by undertaking homestead maintenance, de-fencing, cleaning breeding pens and assisting dolphin feeds at Monkey Mia. • Open space rehabilitation during Perth regional camp. • Dieback action group activities. • Hillside Farm planting of food for the Perth Zoo. • Clean up Western Australia in May. • Assisting at the Paws around Roleystone event. • Representing Roleystone District High School and CALM Bush Rangers at the inaugural Cadets WA Summit • Assisting at Perth Royal Show's Landcare Exhibit. • Planting on National Tree Day. • Display at the Roleystone Community Fair. • Participating in Channel 10 Tokyo's half-hour film on CALM Bush Rangers. • ANZAC Day school event. • ANZAC Day at Armadale RSL. • Mulching and weeding of school native gardens. • Assisting in the Red Cross Appeal. • Volunteering at Cohuna Wildlife Sanctuary. 	<p>School community Cohuna Wildlife Sanctuary Dieback Action Group/City of Armadale Department of Education and Training Australian Red Cross Roleystone community Royal Agricultural Society of WA Cohuna Wildlife Sanctuary CALM's Bunbury office CALM's GIS section CALM's State Operational Headquarters, Kensington CALM's Science Division</p>
Tardun Christian Brothers Agricultural School (CBAS)	<ul style="list-style-type: none"> • Monitoring macro-invertebrates at Ellendale Pool. • Beach clean up at Greenough River. • Tree planting for salinity action and wildlife corridor at Tardun farm. • Fencing of remnant vegetation on Kelly Road/Mindagee Spring Road. • Potting of salt bush for salinity action on salt affected land. • Seed collection and propagation of useful bush plants such aquandongs. • Rubbish clean up along Kelly Road. 	<p>School community St John Ambulance CALM's Bunbury office CALM's GIS section CALM's State Operational Headquarters, Kensington CALM's Millstream-Chichester National Park office</p>

CALM BR unit	Conservation and other community service projects undertaken	Community involvement
<p>Thornlie Christian College</p>	<ul style="list-style-type: none"> • Monitoring invertebrates at Thornlie. • Coordinating eagle and snake awareness program. • Weeding local bushland. 	<p>School community Outdoor Education leader Bob Cooper Raptor Association of WA CALM's Bunbury office CALM's GIS section CALM's State Operational Headquarters, Kensington</p>
<p>Warnbro Community High School</p>	<ul style="list-style-type: none"> • Assisting CALM in the Shark Bay World Heritage area including homestead maintenance, de-fencing, cleaning breeding pens, assisting dolphin feeds at Monkey Mia. • Taking part in a prescribed burn at Dwellingup with CALM's Fire Management Services. • Developing a project with CALM's Regional Parks section at Point Peron. • Cleaning up at Walpole's Tree Top Walk. • Taking part Naragebup Rockingham Regional Environment Centre drain stencilling project. • Bird surveying and cleanup at Kennedy Bay Resort. • Promoting CALM Bush Rangers program in local primary schools. • Assisting with Youth Care's Fun Run. 	<p>School community Leeuwin Leadership Ocean Adventure Naragebup Rockingham Regional Environment Centre Youth Care CALM's Albany work centre CALM's Bunbury office CALM's Fire Management Services CALM's GIS section CALM's State Operational Headquarters, Kensington CALM's Regional Parks section CALM's Shark Bay District office</p>
<p>Waroona District High School</p>	<ul style="list-style-type: none"> • Sand dune brushing and conservation at Preston Beach. • Assisting with Perth Royal Show's Landcare Exhibition. • Display in school library. 	<p>School community Albany Police Clean up Australia Day Committee Preston Beach Coast Care Committee (PBCCC) Western Australia State Emergency services St John Ambulance CALM's Albany work centre CALM's GIS section CALM's State Operational Headquarters, Kensington CALM's Perth Hills District</p>

CALM BR unit	Conservation and other community service projects undertaken	Community involvement
Wongutha CAPS	<ul style="list-style-type: none"> • Tree planting for salinity action at Wongutha Farm, including seed collecting, tree planting and propagation. • Cleaning up local beaches. • Weeding conservation block on Wongutha Farm. • Placing pit traps for monitoring honey possums at Lucky Bay in Cape Le Grand National Park. • Designing and building a frog pond. • Designing a wildlife corridor for honey possums on Wongutha Farm propagation. 	School community Department of Agriculture CALM's Narrogin District office Esperance Police Fire and Emergency Services Authority St John Ambulance CALM's Bunbury office CALM's GIS section CALM's State Operational Headquarters, Kensington

Source: CALM Bush Rangers Unit Annual Reports

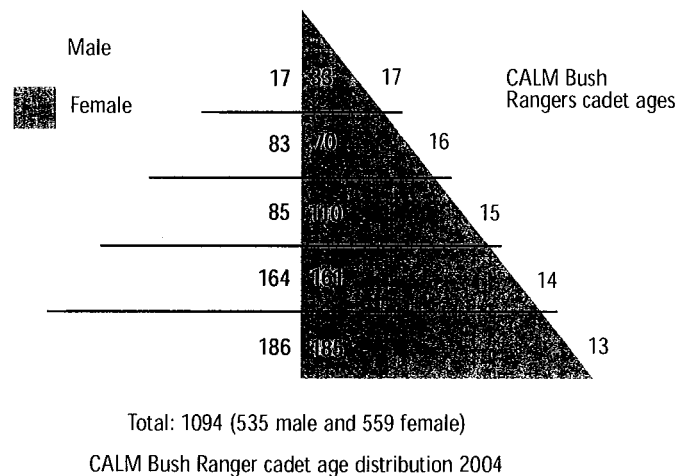
CALM Bush Rangers – equity and diversity

By design, the CALM Bush Rangers program has in-built flexibility that caters to a diverse range of young people and adult volunteers. This inclusive nature gives a rich mix of local solutions to conservation problems while maintaining statewide outcomes based framework. Of the 1300 participants in 29 units:

- 16 units are in rural areas, 13 in Perth;
- 48 per cent adult instructors are female, 52 per cent are male;
- 51 per cent of CALM Bush Rangers are female, 48 per cent are male;
- 13 per cent of cadets identify themselves as Aboriginal and most of these cadets are from rural and remote communities across Western Australia; and
- four per cent are described by their unit as having a disability.

The 25 per cent of new units approved by Cadets WA for 2005 are from a remote community in the Murchison, a Wheatbelt community, a school of students with serve disabilities, south-west and metropolitan schools.

The diagram below illustrates the age distribution of the cadets. This is typical of the age distribution of youth development programs in WA.



Source: 2004 CALM Bush Rangers unit annual reports and the Office of Children and Youth.

Communicating CALM Bush Rangers

The CALM Bush Rangers unit annual reports 2004 reveal the cadets are proudly communicating the work they achieve in biodiversity conservation. Quietly and regularly working with local community groups is a strong and powerful way cadets communicate about the ethic they are gaining from their local area projects.

New opportunities have emerged. In 2004, Mt Lawley cadet unit has partnered with neighbouring Edith Cowan University and mentoring primary students in conservation ethic on the University Environment Day celebrations. This was so successful it will be completed on an annual basis. Chisholm Catholic College cadets have constructed a 'Hooked on Hessian' unit banner depicting their local environment. This now hangs in the school's new Performing Arts Centre. Chisholm also featured on Channel 9's *Postcards WA*. Four units were finalists in the WA Youth Awards this year. This created local media about the program and its potential.

Cadets represented their unit and the program at the fifteenth anniversary of 'Ribbons of Blue', at

local agricultural shows as well as at the Cadets WA Summit and local ANZAC Day services. The history of each unit is well documented as all units maintain a photographic and video record of their projects and expeditions as well as completing school newsletter and magazine articles. Warnbro Community School, Duncraig and other units have produced an 'open night video' that is watched by hundreds of new students and their families.

A record of how each unit chooses to communicate about their projects is listed in the table 1.2 overleaf.



Geograph Education Support Centre CALM Bush Rangers with their completed Unit banner

CALM BR unit	School news letter	Newspaper/ magazine article	Power/video/ DVD	Intranet/ internet	Radio/ TV	Award events	Artwork	Photo history	Display/talks at shows/ events	School magazine
Albany SHS		•						•	•	•
Chisholm Coolgardie CAPS	•	•	•		•	•		•	•	
City Beach School	•						•		•	
Duncraig SHS										
Ellenbrook Christian School	•	•	•					•	•	
Emmanuel Catholic College	•		•	•		•	•	•	•	•
Esperance SHS	•	•				•	•	•	•	
Geographe Education Support Centre	•	•	•			•	•	•	•	
Goldfields Baptist College	•								•	
Gosnells SHS	•			•		•		•	•	•
John Forrest SHS School	•		•	•	•			•	•	
John Septimus Roe Anglican Community School	•				•	•		•	•	•

Table 1.2 Communicating CALM Bush Rangers

CALM BR unit	School news letter	Newspaper/ magazine article	Power/video/ DVD	Intranet/ internet	Radio/ TV	Award events	Artwork	Photo history	Display/talks at shows/ events	School magazine
Katanning SHS	•	•						•	•	
Kalbarri District High School	•	•			•	•		•	•	
Manjimup Senior High School								•	•	
Mt Lawley SHS	•		•	•			•	•	•	
Mundaring	•							•		
Norseman DHS	•	•						•	•	
Northam Senior High School	•	•			•			•	•	
Newton Moore Senior High School								•		
Newman Senior High School	•					•		•	•	•
Rossmoyne SHS	•	•	•	•		•		•	•	•
Roleystone DHS	•				•	•		•	•	
Tardun CBAS	•							•	•	
Thornlie Christian College	•	•		•		•	•	•		

Table 1.2 Communicating CALM Bush Rangers

CALM BR unit	School news letter	Newspaper/ magazine article	Power/video/ DVD	Intranet/ internet	Radio/ TV	Award events	Artwork	Photo history	Display/talks at shows/ events	School magazine
Warnbro Community High School	•	•		•			•		•	
Waroona DHS	•	•						•	•	
Wongutha CAPS	•					•	•	•		



A CALM Bush Rangers cadet hand feeds a black cockatoo at Perth Royal Show.



Gosnells CALM Bush Rangers construct a variety of nesting boxes to encourage local bird species numbers.

Professional development

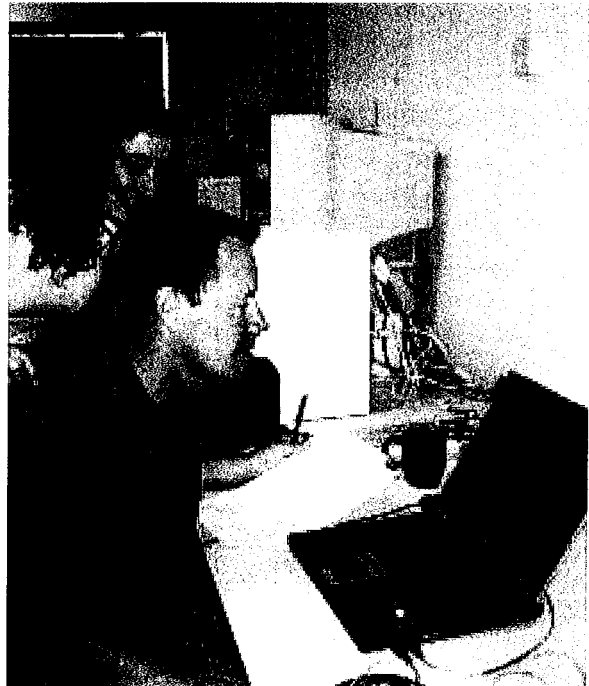
In 2004, professional development opportunities were offered to units, CALM district offices and local communities on an as need basis to provide information about the CALM Bush Rangers program and CALM. An annual in-service for 60 adult volunteers was conducted at the Wellington Discovery Forest, east of Bunbury.

The evaluation from the participants revealed the outcomes achieved included:

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

For more information on CALM Bush Rangers, please contact:

Bronwyn Humphreys
Senior Project Officer
CALM Bush Rangers
Department of Conservation and Land
Management
Locked Bag 29
Bentley Delivery Centre
Bentley 6984 WA
Tel: 08 93340137
Fax: 08 93340498
Email: bronwynh@calm.wa.gov.au
Web: www.naturebase.net



Marguerite D'Alton, CALM GIS Officer, assists Steve Elson, Gosnells Senior High School CALM Bush Rangers Instructor, with GIS tools for the school's avian conservation project.

Appendix 1 CALM Bush Rangers Instructors 2004

CALM Bush Rangers unit	CALM Instructors
Albany Senior High School	Val Davies, Steve Davies, Caroline Foreman
Chisholm Catholic College	Soo Cheng Buckle, Chad Hughes, Debbie Besch
Coolgardie Christian Aboriginal Parent Directed School (CAPS)	Darren Moody, Loretta Moody, Rob Walley, Richard Bourne
City Beach District High School	Chris Froude, Grant Hewson
Duncraig Senior High School	Graeme Smith, Jason Schroeder, Rob Neumann, Maureen Read, Tracey Hwang, Caitlin Ryan
Ellenbrook Christian College	Jodie Russell, Carol Smith, Belinda Cook
Emmanuel Catholic College	Christy Young, Ronnie Cooper, Marina Varone
Esperance Senior High School	Tracy Corps, Betty Lewis, Stuart Myers, Matthew Blomfield, Narelle Minchin
Geographe Education Support Centre	Bronwen Worthington, Sheree Hepworth, Gillian Piirto
Goldfields Baptist College	Greg Combs, Michelle Combs, Rob Griffiths
Gosnells Senior High School	Lyn Wilkinson, Unice Robinson, Steve Elson, Dean Coad, Kelly Caple, Amy Laws
John Forrest Senior High School	Stephen Bauer, Ross Mars, Gerry Fontaine, Colleen Michelle
John Septimus Roe Anglican Community School	Carleen Edwards, George Georgis, Stephen Edwards, Peter Bowers (Snr), Arthur Panayotou, Peter Bowers, Tina Bowers, David Donald
Katanning Senior High School	Phil Hogan, Des Plumb, Sarina Cooper
Kalbarri Senior High School	Craig Addison, Sophie Pisano
Manjimup Senior High School	Graham Gibson, Darlene Herbert
Mt Lawley Senior High School	Andrew Paul, Ann White, Belinda Wykstra, Robynn Blay, Israel Spence, Dorothy Roe
Mundaring Christian College	Cameron Harris, Joanne Goodall, Nathan De Bruyn, Terry Myers
Norseman District High School	Naomi Coffey, Jason Hill, Claire Backhouse
Northam District High School	Matt Zarb, Kylie Taylor, Leonie Whisson
Newton Moore Senior High School	Kevin Lloyd, Alla Lloyd, Jason Chuttloffell, Celeste Mason, Dave Phillips
Newman Senior High School	Paul Bolton, Andrew McWhirter, Sam Glazier
Rossmoyne Senior High School	Wayne Capes, Ann Clemens, Sandra Swain, Mike Casley
Roleystone District High School	Paul Huisman, Debbie Goad, Glenda Huisman
Tardun Christian Brothers Agriculture High School	Claire Tutton, Jesse Quarrington, Jimmy Drage
Thornlie Christian College	Ian Bower, Putsadee Winslade, Kerry Polkinchorne, Nyree Summerfield, Bill Innes, Belinda Fowler, Wendy Brownhill, Ian Stokes
Warnbro Community School	David Karcheski, Teresa Parish, Kent Chambers, Kevin Watson, Sarah Frame, Andrea Havey
Waroona District High School	Kristy Smith, Tom Scotland
Wongatha Christian Aboriginal Parent Directed School (CAPS)	Violet Turvey, Helen Edwards, George Turvey, Wayne Harris, Terry Buckley, Annie Dabb, Shane Meyer, Herbert Howell, Russ Rogan

Appendix 2

CALM staff involved with CALM Bush Rangers (Please note: FTE positions as of 2004)

<p>CORPORATE SERVICES DIVISION</p> <p>PEOPLE SERVICES BRANCH</p> <p>Risk Management Section</p> <p>John Ireland Alicia Taylor</p>	<p>Manager, Risk Management Section Consultant, Corporate Health</p>
<p>ORGANISATIONAL LEARNING AND DEVELOPMENT</p> <p>Tania Donovan</p>	<p>Aboriginal Employment and Development Officer</p>
<p>Geographical Information Services Section</p> <p>Robyn Wilson Nathan Eaton Shane French</p>	<p>Manager, GIS Applications Cartographic Officer, GIS Applications Project Leader, GIS Applications</p>
<p>NATURE CONSERVATION DIVISION</p> <p>Marine Management Support Section</p> <p>Karen Wheeler</p> <p>Wildlife Branch</p> <p>Peter Mawson</p> <p>Nature Protection Branch</p> <p>Specialised Compliance Operations</p> <p>Doug Coughran Matt Warnock</p>	<p>Marine Community Monitoring Officer</p> <p>Senior Zoologist</p> <p>Senior Wildlife Officer (Marine Wildlife) Regional Wildlife Officer</p>
<p>PARKS AND VISITOR SERVICES DIVISION</p> <p>Indigenous Heritage Unit</p> <p>Koodah Cornwall</p> <p>Statewide Tracks and Trails Unit</p> <p>Annie Keating</p> <p>Regional Parks - Fremantle</p> <p>Stuart Harrison</p>	<p>A/Coordinator and Indigenous Heritage Officer</p> <p>Tracks and Trails Coordinator</p> <p>Operations Officer</p>
<p>REGIONAL SERVICES DIVISION</p> <p>Fire Management Services, Bunbury</p> <p>Alex Moylett</p> <p>Fire Management Services, Kensington</p> <p>Ross Mead</p>	<p>Fire Training Officer</p> <p>Senior Fire Training Officer</p>
<p>GOLDFIELDS REGION</p> <p>Sarah Campbell Julie Patten</p>	<p>Reserves Officer Reserves Officer</p>

<p>MIDWEST REGION</p> <p>Geraldton Alanna Chant</p> <p>Kalbarri National Park Mike Paxman Lindsay Baker Greg Tapley</p> <p>Moora District Jurien Bay Adam Meyer Gina Broun</p> <p>Shark Bay District David Rose Carl Beck Mark True Isaac Hatch Colleen Sims Nicole Noakes Robert Thorne Daniel Cock</p> <p>Monkey Mia Reserve David Charles Roger Syme Danielle Hanf</p>	<p>Conservation Officer - Flora</p> <p>Senior Ranger National Park Ranger Park Maintenance Worker</p> <p>Wildlife Officer Conservation Officer (Flora)</p> <p>District Manager Parks and Visitor Services Leader Senior Ranger Ranger Manager Project Eden Peron Captive Breeding Centre Indigenous Trainee Indigenous Trainee</p> <p>Manager Monkey Mia Reserve Officer Monkey Mia Reserve Officer</p>
<p>PILBARA REGION</p> <p>Karijini National Park Paul Udinga Mike Sermon</p> <p>Millstream-Chichester National Park Russell Asplund</p> <p>Cape Range National Park Terry Harrington</p>	<p>Ranger Ranger</p> <p>Ranger</p> <p>Ranger</p>
<p>SOUTH COAST REGION</p> <p>Albany Work Centre John Watson Martin Lloyd Brent Barrett Sylvia Leighton Luke Coney Sara Hands Sarah Barrett</p> <p>Esperance District Mike Fitzgerald Ryan Butler Geoff Young Wayne Williams Tilo Massenbauer</p>	<p>Regional Manager A/Regional Leader, Parks and Visitor Services Ground Parrot Project Officer Land for Wildlife Officer A/Parks Manager Technical Officer Threatened Flora Officer</p> <p>Nature Conservation Coordinator Conservation Officer (Rare Flora) Parks and Visitor Services Coordinator Aboriginal Trainee Recovery Catchment Officer</p>

<p>Cape Arid National Park Geoff Passmore Peter Masters Cape Le Grand National Park Allan Rose</p>	<p>Senior Ranger National Park Ranger Senior Ranger</p>
<p>SOUTH-WEST REGION Bunbury Bob Chandler Peter Henderson Janet Date Wink Ferris Blackwood District Busselton Work Centre Brad Commins Cherie Kemp Brian O'Hehir Margaret River Work Centre Glen Willmott Clare Forward Wellington District Collie Work Centre Christina Gilbert</p>	<p>Regional Manager Program Leader Parks and Visitor Services EcoEducation Officer EcoEducation Officer Operations Manager <i>Land for Wildlife Officer</i> A/Senior Ranger Senior Ranger National Park Ranger National Park Ranger</p>
<p>REGIONAL SERVICES DIVISION Swan Coastal District Phil Smeeton</p>	<p>A/Parks and Visitor Services Coordinator</p>
<p>SWAN REGION Team at Perth Hills District Lane Poole Reserve Ingrid Hunt</p>	<p>Ranger</p>
<p>WARREN REGION Manjimup Work Centre John Smethust Rick Pearce Ian Rhodes Graham Norrish Katie Hargreaves Julie Northin Frankland District Walpole Office Karlene Bain Valley of the Giants – Tree Top Walk Staff of the Valley of the Giants Walpole-Nornalup National Park Chris Goodsell Andrea Bidwell Karlene Bain</p>	<p>Conservation Worker/Storeman Conservation Worker Overseer District Administration Officer National Park Ranger National Park Ranger A/District Nature Conservation Officer National Park Ranger Seasonal Ranger A/District Nature Conservation Officer</p>

<p>WHEATBELT REGION</p> <p>Narrogin District</p> <p>Brian Mahoney Lyn Chadwick Des Plumb</p>	<p>Reserves Officer Barna Mia District Wildlife Officer</p>
<p>SCIENCE DIVISION</p> <p>Manjimup Research Bruce Ward Graeme Liddelow</p>	<p>Senior Technical Officer (Manjimup Research Centre) Senior Technical Officer (Manjimup Research Centre)</p>
<p>STRATEGIC DEVELOPMENT AND CORPORATE AFFAIRS</p> <p>Ron Kawalilak Caris Bailey</p> <p>Programs and Publications Section</p> <p>Rhianna Mooney Gootizen van der Meer</p> <p>EcoEducation Section</p> <p>Bronwyn Humphreys Robyn Weir</p>	<p>Director, Strategic Development and Corporate Affairs Director, Strategic Development and Corporate Affairs (Acting)</p> <p>Editorial Assistant Senior Graphic Designer</p> <p>Senior Project Officer – CALM Bush Rangers Project Officer – CALM Bush Rangers</p>
<p>SUSTAINABLE FOREST MANAGEMENT DIVISION</p> <p>Abe Van De Sande</p>	<p>Senior Dieback Interpreter</p>

Source: CALM Bush Rangers unit annual reports



Geoff Passmore, Cape Le Grand National Park Senior Ranger, completes biological field work with CALM Bush Rangers from Wongutha CAPS.

Appendix 3 CALM Bush Rangers unit statistics

CALM Bush Rangers unit	No. cadets	Rank	Volunteer hours
Albany Senior High School	21	Ranger Recruits 5 Rangers 2 First Class Rangers 5 Senior Rangers 2 Ranger Section Leader 1 Ranger Unit Leader 1	4622
Chisholm Catholic College	30	Rangers 24 First Class Rangers 3 Ranger Section Leaders 3	8820
Coolgardie CAPS	35	Ranger Recruits 32 Ranger Section Leaders 3	10648
City Beach School	15	Ranger Recruits 15	2096
Duncraig Senior High School	51	Rangers 22 First Class Rangers 11 Senior Rangers 11 Deputy Leader 2 Ranger Section Leaders 5 Ranger Unit Leader 1	11602
Ellenbrook Christian College	36	Rangers 26 Deputy Section Leaders 5 Ranger Section Leaders 5	13624
Emmanuel Catholic College	47	Rangers 27 First Class Rangers 6 Senior Rangers 10 Ranger Section Leaders 4	10840
Esperance Senior High School	58	Ranger Recruits 32 Rangers 10 First Class Rangers 6 Senior Rangers 2	14560
Geographe Education Support Centre	22	Ranger Recruits 22	6645
Goldfields Baptist College	15	Ranger Recruits 8 First Class Rangers 3 Deputy Unit Leaders 2 Ranger Unit Leaders 2	2700
Gosnells Senior High School	34	Ranger Recruits 16 First Class Rangers 9 Senior Rangers 3 Ranger Section Leaders 6	25272

CALM Bush Rangers unit	No. cadets	Rank	Volunteer hours
John Forrest Senior High School	19	Rangers 9 First Class Rangers 9 Senior Rangers 1	4238
John Septimus Roe Anglican Community School	58	Ranger Recruits 30 Rangers 10 First Class Rangers 3 Senior Rangers 10 Ranger Section Leaders 4 Deputy Unit Leaders 2 Ranger Unit Leader 1	30000
Katanning Senior High School	11	Ranger Recruits 6 Rangers 2 Senior Rangers 2 Ranger Unit Leader 1	1000
Kalbarri District High School	25	Ranger Recruits 10 Rangers 7 Deputy Section Leaders 4 Ranger Section Leaders 4	4450
Manjimup Senior High School	23	Ranger Recruits 7 Rangers 12 First Class Rangers 2 Senior Rangers 2 Ranger Section Leaders 2	3954
Mt Lawley Senior High School	100	Ranger Recruits 65 Rangers 20 Deputy Section Leaders 14 Ranger Section Leaders 7	14037
Mundaring Christian College	41	Ranger Recruits 21 Rangers 20 Ranger Section Leaders 4 Ranger Unit Leader 1	8325
Norseman District High School	27	Ranger Recruits 21 Deputy Section Leaders 3 Ranger Section Leaders 3 Ranger Unit Leader 1	3474

CALM Bush Rangers unit	No. cadets	Rank	Volunteer hours
Northam Senior High School	38	Ranger Recruits 20 Rangers 10 Senior Rangers 3 Ranger Section Leaders 3 Deputy Unit Leader 1 Ranger Unit Leader 1	25156
Newton Moore Senior High School	46	Ranger Recruits 31 Rangers 7 Senior Rangers 7 Ranger Unit Leader 1	8800
Newman Senior High School	24	Ranger Recruits 4 Rangers 4 Senior Rangers 4	3645
Roleystone District High School	29	Ranger recruits 6 First Class Rangers 11 Senior Rangers 9 Ranger Section Leaders 2 Ranger Unit Leader 1	7567
Rossmoyne Senior High School	37	Ranger Recruits 18 Rangers 6 First Class Rangers 3 Senior Rangers 3 Ranger Section Leaders 4 Deputy Unit Leaders 2 Ranger Unit Leader 1	10000
Tardun CABS	21	Ranger Recruits 9 Rangers 9 Senior Rangers 3	4624
Thornlie Christian College	96	Ranger Recruits 96	6340
Warnbro Community High School	104	Ranger Recruits 53 Rangers 24 Senior Rangers 25 Ranger Section Leaders 8	19788
Waroona District High School	21	Ranger Recruits 9 Rangers 8 First Class Rangers 4	4386

CALM Bush Rangers unit	No. cadets	Rank	Volunteer hours
Wongutha CAPS	54	Ranger Recruits 31 Rangers 10 First Class Rangers 5 Deputy Leaders 2 Ranger Section Leaders 5 Ranger Unit Leader 1	25,156
TOTAL	1138	Rangers Recruits 471 Rangers 269 First Class Rangers 80 Senior Rangers 97 Deputy Leader 4 Deputy Section Leader 26 Ranger Section Leader 73 Deputy Unit Leader 7 Ranger Unit Leader 13	296,369

Source: CALM Bush Rangers Unit Annual Report

Appendix 4 Equity and Diversity statistics

Unit/school name	Total male	Total female	Total cadets	Male staff	Female staff	Total staff	Aboriginal	Born overseas	Language	Disability
Albany SHS	0	0	0			0				
Bunbury Cathedral Grammar	0	0	0			0				
Chisholm CC	16	18	34	1	2	3			6	
City Beach HS	9	4	13	1	1	2				
Coodanup CC	6	3	9	1	1	2				
Coolgardie CAPS	29	26	55	3	1	4	55		12	
Dale Christian School	10	4	14	1	1	2	3	5	1	5
Duncraig SHS	26	22	48	3	2	5	1			
Ellenbrook CC	30	35	65	4	4	8				
Emmanuel CC	22	26	48	0	3	3		2	2	2
Esperance SHS	30	22	52	2	3	5	2	2		
Geographe Ed Support	14	10	24	0	3	3	1			
Goldfields BC	3	6	9	1	1	2		1		
Gosnells SHS	22	13	35	2	2	4			1	1
John Forrest SHS	25	12	37	2	2	4	5	8		2
John Septimus	35	28	63	4	2	6				
Kalbarri DHS	5	7	12	0	1	1				
Katanning SHS	6	5	11	2	1	3				2
Manjimup SHS	16	7	23	1	1	2	1			1
Merredin Senior High School	3	10	13	1	2	3	1			
Mount Lawley SHS	38	37	75	4	4	8				2
Mundaring Christian College	35	30	65	3	3	6	1	9		
Newman SHS	14	17	31	2	1	3				
Newton Moore SHS	16	25	41	3	1	4				
Norseman DHS	12	5	17	0	1	1	2	1	1	2
Northam SHS	16	20	36	2	2	4	3		1	2
Pia Wajarri Community School	9	6	15	1	1	2	15			
Roleystone DHS	8	10	18	1	2	3				
Rossmoyne SHS	23	21	44	4	1	5		7	5	2
Tardun CBAS	41	2	43	2	2	4	17	3		
Thornlie CC	43	57	100	6	5	11				
Warnbro CHS	62	92	154	4	2	6	1			1
Waroona DHS	10	12	22	1	1	2				
Wongutha CAPS	27	27	54	10	6	16	54		25	
TOTAL	661	619	1280	72	65	137	162	36	54	22

