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CALM Bush Rangers

Annual Report 2003



“The quality of the citizenship displayed by the youth and adult volunteers of the CALM Bush Ranger program, and the constructive partnerships they formed with CALM and their local communities contributed to the success of the program in 2003. The program led to personal growth among 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

2003 CALM Bush Rangers Annual Report

Engaging local communities with their youth in biodiversity conservation

Summary of achievements	2
Background	3
Conservation and other community services	6 – 22
CALM Bush Rangers reward experiences	23
CALM Bush Rangers credentials	23
Teamwork and leadership	21
Recognition by the community of the CALM Bush Rangers program	24
The CALM Bush Rangers program: equity and diversity	25
Communicating CALM Bush Rangers	26
Our role as a host organisation	26
Professional development	28
Appendix 1	
CALM Bush Rangers instructors 2003	29
Appendix 2	
CALM staff in CALM Bush Rangers 2003	30 – 34
Appendix 3	
CALM Bush Rangers statistics	
Appendix 4	35 – 38
CALM Bush Rangers Equity and Diversity statistics	40 – 41



Wongutha (CAPS) Unit at Bromus Dam Camp.

Summary of achievements

For five years, the CALM Bush Rangers program has flourished as part of Cadets WA and, in 2003, culminated international, national and State recognition for its conservation and youth development achievements.

As well as instilling an ethic for conservation among thousands of young people involved in the nationally-accredited program, it has created a pathway for CALM Bush Rangers to gain scholarships to universities and selection to the Department of Conservation and Land Management's (CALM's) prestigious graduate recruit program and Indigenous traineeships.

The emerging group of CALM Bush Rangers who have completed high school and are now returning to their Unit as 'Instructors in Training', indicates the depth and variety of credentials and opportunities the program offers Western Australian youth.

The adult Instructors in each Unit are the backbone of the program and many have been in the program since its inception. Their energy, creativity, willingness to seek new ways and citizenship has enabled the program to thrive.

In 2003, more than 1,000 participants completed more than 200,000 volunteer hours. As well as weekly commitments to conservation projects, Units completed mammoth conservation expeditions to Laverton (via Goongarrie Station), Ningaloo Reef, Shark Bay World Heritage Area, Karijini National Park and the South West national parks.

CALM's staff have embraced the program and offer unique life experiences to the CALM Bush Rangers. They work directly in CALM's biodiversity activities such as *Western Shield*, controlled burning activities, threatened species

management, national and regional park management and visitor interpretation.

More than 200 local community groups and agencies across WA have selected the CALM Bush Ranger program to work with their young people. The shared role between CALM and communities who volunteer with CALM Bush Rangers on conservation and other community service projects has enhanced:

- social and civic responsibility;
- environmental responsibility; and
- commitment to achievement of potential.



Wongutha (CAPS) Unit camp.



The Perup Reward Camp with CALM's Science Division.

Background

CALM Bush Rangers has operated as part of the State Government's Cadets WA program since 1998. The program fosters competence and confidence in life skills such as teamwork and leadership and, within the CALM Bush Rangers network, an ethic for conservation community service.

The table communicating the extensive community service each Unit has achieved and the community partnerships they have formed appears on page 24.

The number and range of CALM staff involved in the program continues to be strong and the variety of projects they offer across CALM's divisions are creative and meaningful.

Distribution of CALM Bush Ranger Units across the education sector

Year	Government School of Isolated and Distance Education	Government Senior High Schools	Government District High Schools	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

Two thirds of the CALM Bush Rangers Units are from government schools, 16 are in rural areas and 11 are from in the Perth Metropolitan region.

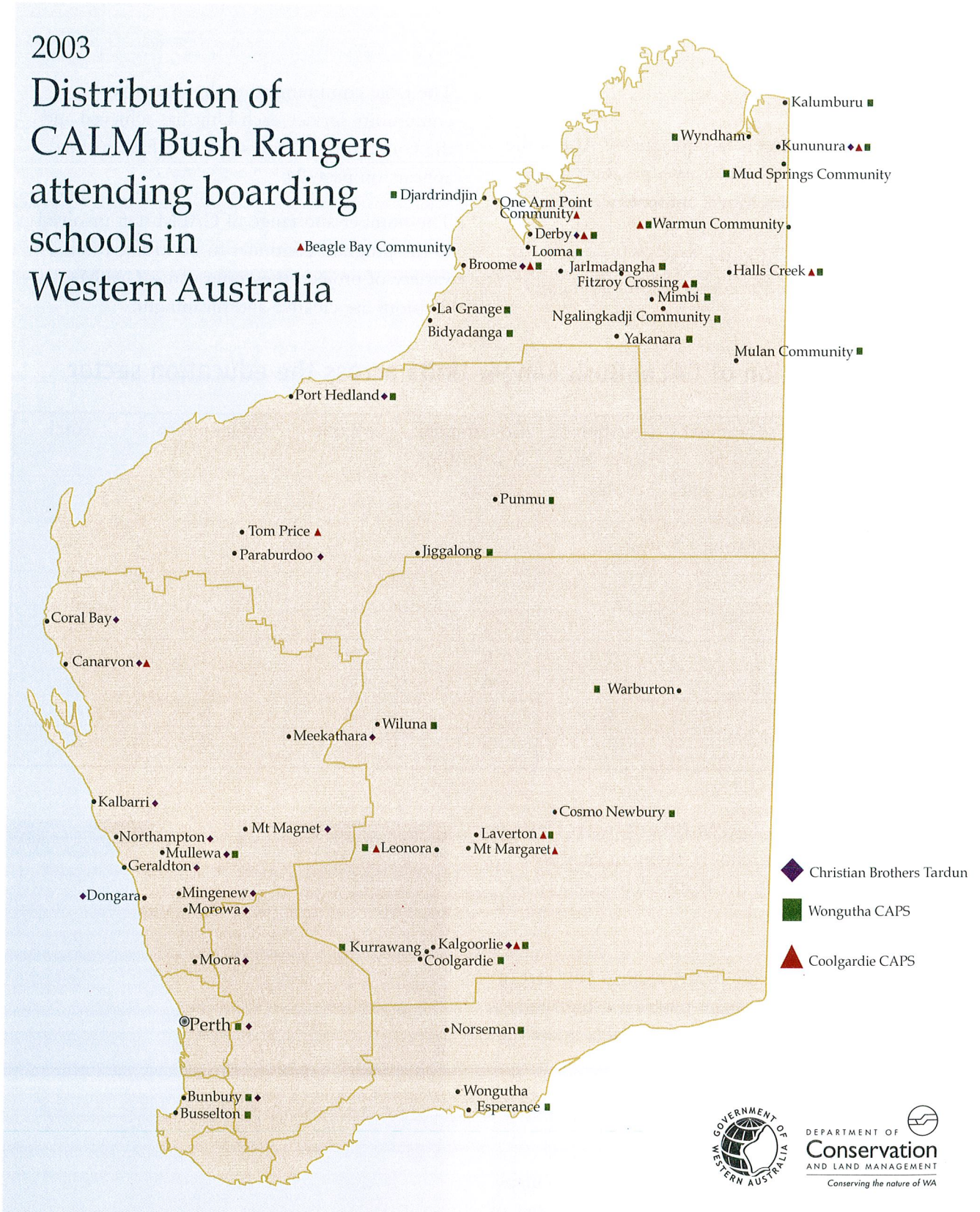
The number of schools that want to take part in the CALM Bush Ranger program is high and the demand outstrips placements available under the Cadets WA program.

The CALM Bush Ranger program and its conservation projects are represented in all bioregions of the State. The following two maps depict the locations of Units and the locations of boarding schools involved in the program.



Channel 10 Tokyo filming the Roleystone Unit at CALM's Fire Management Services Reward Camp.

2003 Distribution of CALM Bush Rangers attending boarding schools in Western Australia



2003 Location of CALM Bush Ranger Units in Western Australia



Conservation and community service – our collective role

Details of each Unit’s extensive conservation and other community services are given below. Some projects have been highlighted to communicate the diversity of projects among Units and across Western Australia.

CALM-managed lands and private estates. These projects engaged the local community and CALM staff. In 2003, 1,053 CALM Bush Rangers and Instructors completed more than 200,000 hours of volunteer conservation and community service and life skill development within the CALM Bush Rangers Program.

The marine, aquatic and terrestrial projects are on

CALM Bush Ranger Unit	Conservation and other community service activities undertaken:
Albany Senior High School	<ul style="list-style-type: none"> • Whalers Cove (Albany) Dive Trail plinth location and recovery for underwater interpretation trail. • Conducting post fire assessments, including quokka population tracking, quadrant sampling of balga trees in fire and non fire areas of Pingerup forest block and tagging <i>Banksia attenuata</i> at Surprise forest block. • Capturing and censuring sunset frogs at Walpole. • Maintaining the Albany SHS Land for Wildlife Bush Block. • Participating in the Adopt a Beach Program as part of Clean Up Australia Day. • Fauna monitoring of Gilbert’s potoroos at Two Peoples Bay. • Presenting a Sustainability Declaration to the City of Albany. • Volunteering at the Naragebup Rockingham Regional Environment Centre display and community service. • Undertaking a bird census at Lake Richmond in Rockingham. • Night stalking at Mt Clarence with the local community. • Bird monitoring at Irwin Inlet. • Voluntarily manning CALM’s display at the Albany show. • Monitoring water quality and mapping surrounding vegetation at Wamballup Nature Reserve. • Night stalking at Stirling Range National Park. • Tree planting at Mt Adelaide. • Tree planting at Lake Swan Reserve. • Weeding at Lake Swan Reserve. • Fundraising for the Friends of Porongurups’ purchase of Twin Creeks block. • Weeding tagasaste, tree planting and drain clearing at the Payham Vale Organic Farm Land for Wildlife site. • Cleaning up litter on Middleton Beach.

Senior High School (cont)	<ul style="list-style-type: none"> • Eradicating bridal creeper at Albany SHS's Land for Wildlife site. • Volunteering as guides at the Sleek Geek Science Show with Triple J's Adam Spencer. • Volunteering as guides at the Rural Women In Education conference. • Completing the Leeuwin Ocean Adventure Leadership Course.
Chisholm Catholic College	<ul style="list-style-type: none"> • Weeding, mulching and planting at Hines Reserve near the Swan River. • Drain stencilling at Bayswater. • Macro invertebrate surveying at Bayswater. • Weeding, clearing litter, and carrying out revegetation and maintenance work at Chisholm stormwater drain. • Weeding and mending tree guards at Lightning Swamp • Removing watsonia from Woorloo Brook, constructing and putting up bird boxes at Gidgegannup. • Community work with the Cerebral Palsy Association. • Assisting at the Perth Royal Show's CALM-sponsored Land Experience exhibit with native animal husbandry, watering, visitor interpretation, assisting Captain Clean Up, visitor tallying and badge making. • Maintenance at the Fauna Rehabilitation Foundation. • Nation Tree Day rehabilitation at Eric Singleton Bird Sanctuary. • Rehabilitating sand dunes at Trigg Beach. • ANZAC Day ceremony at Chisholm Catholic College.
Coolgardie Christian Aboriginal Parent Directed School (CAPS)	<ul style="list-style-type: none"> • Planning of the Coolgardie Wildlife Sanctuary. • Maintaining a local waterhole and mallee fowl nest inspecting at Goongarrie camp. • Completing the Leeuwin Ocean Adventure Leadership Course.
City Beach District High School	<ul style="list-style-type: none"> • Bold Park Conservation rehabilitation work after Garden Week including fencing, weeding, planting, mulching, trimming. • Frog monitoring Perry Lakes. • Reed planting at Herdsman Lakes. • Native animal husbandry and centre maintenance at Malaga Fauna Rehabilitation Centre during Regional Camp.

<p>City Beach District High School (cont)</p>	<ul style="list-style-type: none"> • Owl watching at Patens Brook. • Community service at school including painting a room for a focus group and constructing planter boxes. • Cleaning up rubbish in local City Beach streets. • Constructing and maintaining a worm farm to recycle school waste.
<p>Duncraig Senior High School</p>	<ul style="list-style-type: none"> • Taking part in Duncraig Senior High School's school bushland management - program including weeding, tuart tree planting and, rubbish removal. • Taking part in Clean Up Australia Day. • Acting as guides at Joondalup's Environment Day. • Weed eradication and mulching with CALM at Margaret River. • Sponsoring two children through World Vision. • Completing the Leeuwin Ocean Adventure Leadership Course.
<p>Ellenbrook Christian College</p>	<ul style="list-style-type: none"> • Owl watching at Ellenbrook. • Native animal husbandry and centre maintenance at Malaga Fauna Rehabilitation Centre. • Conservation rehabilitation of bushland at Margaret River. • Water quality testing both chemical and biological. (macro invertebrate biodiversity) at Whiteman Park. • Salinity monitoring at Lake Fresco Ellenbrook. • Terrestrial macro invertebrate sampling in Ellenbrook. • Providing assistance at the Perth Royal Show's CALM-sponsored Land Experience exhibit, including native animal husbandry, visitor interpretation activities, watering plants, visitor counts, helping Captain Clean Up demonstrate the 3R's (Reduce, Reuse, Recycle). • Communicating biodiversity conservation with the Kites for Conservation project. • Creating photographic essays of the work the Unit achieves. • Tree planting at Yanchep National Park. • Assisting the Caversham Wildlife Park with native animal husbandry. • Starting the Zoo Food project. • Starting the Frog Pond project. • Working as guides at the Whiteman Park Ground Water Festival. • Completing the Leeuwin Ocean Adventure Leadership Course.

Emmanuel Catholic College	<ul style="list-style-type: none"> • Termite harvesting for the numbat breeding at Perth Zoo. • Shark Bay World Heritage area, Monkey Mia visitor interpretation with public, native animal breeding pen maintenance. • Trapping native animals as part of CALM's <i>Western Shield</i> program on the Perup Reward Camp. • Taking part in the film production with Channel 10 Tokyo for a half hour documentary <i>Wildflowers and the CALM Bush Rangers</i>. • Taking part in the Clean Up Australia Day activities at Emmanuel. • Possum monitoring and pit trap monitoring at Tuart Forest Busselton. • Tree planting at Busselton. • Producing a website. • Maintaining turtle tunnels, weeding and identifying flora and fauna at Thompsons Lake. • Tree planting at Woodman Point Reserve with City of Cockburn and the Southern Lakes Draining Scheme. • Frog watching at Little Rush Lake and Lake Yangebup. • Raising money for the orang-utans at Perth Zoo. • Completing a controlled burn around the Forest Heritage Centre at Dwellingup. • Macro invertebrate sampling Lake Yangebup. • Native garden maintenance at school. • Constructing a herbarium. • Taking part in the ANZAC Day parade. • Completing visitor surveys at Woodman Point. • Shade house maintenance. • Propagating food for the Perth Zoo. • Cleaning up Coogee and Woodman Point beaches. • Native animal husbandry and grounds maintenance at Malaga Fauna Rehabilitation Centre.
Esperance Senior high School	<ul style="list-style-type: none"> • Preventing erosion in the local national parks. • Identifying flora and fauna. • Taking part in the bridal creeper weed eradication project. • Fire break maintenance at Woody Island.

<p>Esperance Senior high School (cont)</p>	<ul style="list-style-type: none"> • Completing drain stencilling for the yellow fish project. • Taking part in the Salvation Army's Red Shield Appeal. • Community tree planting. • Collecting pine cones for fire starters for the elderly in Esperance. • Waste recycling at Esperance Senior High School. • Creating underwater photographic essays. • Completing the Leeuwin Ocean Adventure Leadership Course.
<p>Goldfields Baptist College</p>	<ul style="list-style-type: none"> • Cleaning up Boondi Dam. • Boulder Cemetery noxious weed eradication. • Macro invertebrate surveying in Blue Dam. • Taking part in the Salvation Army's Red Shield appeal. • Volunteering at the <i>Plants of Karlkural Park</i> book launch in Kalgoorlie. • Completing the Leeuwin Ocean Adventure Leadership Course.
<p>Gosnells Senior High School</p>	<ul style="list-style-type: none"> • Macro invertebrate sampling in Bunbury. • Being named finalists in the WA Youth Awards. • Weeding at Wellington Discovery Forest • Maintaining Mary Carol Park (eradication of bamboo and dodder weed). • Waste recycling at Gosnells Senior High School. • Planting 5,000 trees in salt-affected areas in Beverley. • Maintaining the Harry Waring Reserve (clearing it for fire breaks, eradicating weeds near the lake, clearing vehicle tracks, cleaning snake cages and animal trapping). • Completing drain stencilling for the yellow fish project. • Macro invertebrate sampling at Helm Street Drain in Quarry Park. • Propagating food for the Perth Zoo food (Acalypha, coprosma, saligna). • Tree planting for the freeway extension project (1,000 trees) • Completing the Leeuwin Ocean Adventure Leadership Course. • Native sea collection and propagation at the Hillside Farm Education Centre. • Weeding and planting native species at the Malaga Rehabilitation Centre. • Coast Care activities with CALM at Sorrento.

<p>John Forrest Senior High School (cont)</p>	<ul style="list-style-type: none"> • Rehabilitating remnant school bushland. • Planting for the Basewater Integrated Catchment Management program. • Painting the bird hide at Eric Singleton Bird Sanctuary. • Monitoring wetland biodiversity including macro invertebrate sampling. • Waste recycling at John Forrest Senior High School. • Propagating native plants. • Developing a Unit web page (www.johnforrest.wa.edu.au). • Cleaning up the John Forrest Senior High School grounds as part of Clean Up Australia Day. • Taking part in the Salvation Army's Red Shield Appeal. • ANZAC Day commemoration. • Seed collecting and dune restoration at Rottne Island.
<p>John Septimus Roe Anglican Community School</p>	<ul style="list-style-type: none"> • Hosting a regional camp and undertaking conservation activities with Malaga Fauna Rehabilitation Centre. • Participating in the Variety Bash from Perth to Laverton which raised thousands of dollars for less privileged youth by 30 students: the first ever youth group. • Native animal trapping on Goongarrie Station with a Regional CALM ecologist. • Completing a controlled burn at Dwellingup. • Taking part in the film production with Channel 10 Tokyo for a half hour documentary <i>Wildflowers and the CALM Bush Rangers</i>. • Working as guides, making badges, conducting visitor tallies, watering plants, assisting Captain Clean Up and setting up and dismantling exhibits at the Perth Royal Show's CALM-sponsored Land Experience exhibit. • Weeding, native animal husbandry, wetland rehabilitation, rehabilitation of bushland at the Fauna Rehabilitation Centre at Malaga. • Collecting money for the Salvation Army. • Marine community monitoring at Mettams Pool. • Completing the Leeuwin Ocean Adventure Leadership Course. • Working as guides at the John Septimus Roe Anglican Community School. • Solar Car Challenge entry.

<p>Katanning Senior High School</p>	<ul style="list-style-type: none"> • Creating a shade house and propagating native trees for black cockatoo feeding requirements, planning Police Pools Reserve and regeneration work at John's Well Reserve. • Building and installing bird boxes for Police Pools Reserve. • Restoring and monitoring pit traps at John's Well Reserve. • Maintaining the walk track at Police Pools Reserve. • Orchid monitoring at Katanning Reserve.
<p>Kalbarri Senior High School</p>	<ul style="list-style-type: none"> • Monitoring chuditch and woylies at Kalbarri National Park as part of CALM's <i>Western Shield</i> program. • Fauna monitoring and bird surveying in the Shark Bay World Heritage area. • Owl watching at Lucky Bay. • Developing a herbarium and fauna identification kit for the local Kalbarri area. • Brushing, fencing and coast care at Chinaman's Beach. • ANZAC Day march at Kalbarri. • Making fire bricks. • Constructing a BMX track.
<p>Manjimup Senior High School</p>	<ul style="list-style-type: none"> • Management planning for Faunadale Nature Reserve. • Fauna trapping and monitoring at Manjimup. • Improving the tourist visitor facilities. • Planning controlled burns. • Maintaining Perup Ecology Centre. • Maintaining the trail, constructing BBQ tables, erecting safety railings, maintaining bicycle track, erecting an information sign and installing nesting boxes throughout the reserve as part of the King Jarrah recreation project. • Constructing bench seating at Manjimup Senior High School. • Assisting at the school graduation ceremony and providing parking attendance for 400 vehicles. • Planting 3,000 trees for National Tree Day. • Picking up rubbish at Wharncliffe and Hamelin Bay, Faunadale and King Jarrah Reserve. • Flag raising duties at Manjimup Senior High School. • Dean Mill Heritage Trail weeding and tree planting.
<p>Mt Lawley Senior High School</p>	<ul style="list-style-type: none"> • Completing a controlled burn at Dwellingup. • Working as guides, watering plants, making badges, helping

<p>Mt Lawley Senior High School (cont)</p>	<p>Captain Clean Up and completing visitor tallies at the Perth Royal Show's CALM-sponsored Land Experience exhibit.</p> <ul style="list-style-type: none"> • Taking part in the film production with Channel 10 Tokyo for a half hour documentary <i>Wildflowers and the CALM Bush Rangers</i>. • Monitoring possums at the Leeuwin Naturaliste National Park Boranup Camp. • Cleaning up beaches in the Shark Bay World Heritage area. • Planting trees as part of Rotary's Greening the Freeway program. • Taking part in Kites for Conservation. • Seed collecting and conservation community service at Rottneest Island. • Cleaning up John Forrest National Park. • Macro invertebrate biodiversity monitoring at Mt Lawley.
<p>Mundaring Christian College</p>	<ul style="list-style-type: none"> • Tree planting, weed controlling and removing rubbish from the roadside at Camp Kerem farm. • Constructing a water wise garden at Mundaring Christian College. • Working as guides at the Whiteman Park conservation day.
<p>Norseman District High School</p>	<ul style="list-style-type: none"> • Trapping native animals as part of CALM's <i>Western Shield</i> program at Peak Charles. • Completing a cleanup on Eyre Highway. • Frog watching at Norseman. • Owl watching at Norseman. • Monitoring declared rare flora with CALM. • ANZAC Day ceremony with local RSL Club. • Completing school bushland cleanups. • Creating photographic essays of the conservation and community service projects. • Making paper from waste recycling at Norseman District High School. • Painting the school's rubbish bins. • Constructing a BMX track. • Completing the Leeuwin Ocean Adventure Leadership Course.
<p>Northam District High School</p>	<ul style="list-style-type: none"> • Native animal husbandry and visitor interpretation at Monkey Mia in the Shark Bay World Heritage area.

<p>Northam District High School (cont)</p>	<ul style="list-style-type: none"> • Trapping chuditch, woylies and possums and monitoring vegetation pre and post fire on the Perup Reward Camp as part of CALM's <i>Western Shield</i> program. • Monitoring the Avon River for macro invertebrate biodiversity. • Salt watching on the Avon River. • Assisting wildlife carers with the native animals at the Northam Show. • Propagating and planting native trees for Greening the Freeways program. • Developing a Unit web page. • Completing the Leeuwin Ocean Adventure Leadership Course. • Planting 9,000 trees and sedges on the banks of the Avon River during the last three years in conjunction with Murdoch University.
<p>Newton Moore Senior High School</p>	<ul style="list-style-type: none"> • Constructing an area to breed marine fish. • Helping local youth to identify good eating and bad eating fish when spear fishing. • Monitoring the pond water quality at Bellemore Park. • Monitoring human impact on the sand dunes at Maidens Reserve. • Planting tuart and peppermint trees on Maidens Reserve. • Cleaning up Hasties Beach and Rottnest Island as part of the Adopt a Beach program. • Developing the Unit's website. • ANZAC Day commemoration.
<p>Newman Senior High School</p>	<ul style="list-style-type: none"> • Designing a native garden for the Newman tourist centre. • Working to restore a walking trail to the top of Mt Bruce in Karijini National Park. • Constructing a native garden at Newman Senior High School. • Recording local native plants using a photographic essay. • Working with the Anglican Church to clean up along the tourist road. • Carting blue metal to Radio Hill for a community sculpture. • Manning a community expo in Newman
<p>Rossmoyne Senior High School</p>	<ul style="list-style-type: none"> • Collecting Sydney golden wattle for giraffes at the Perth Zoo. • Working with CALM staff paint board walks in the Moora District.

<p>Rossmoyne Senior High School (cont)</p>	<ul style="list-style-type: none"> • Taking part in the film production with Channel 10 Tokyo for a half hour documentary <i>Wildflowers and the CALM Bush Rangers</i>. • Weeding blackberries and planting native species at Bull Creek. • Rehabilitating the Canning River foreshore by planting reeds and sedges and controlling weeds. • Constructing a bird shelter at Bibra Lake Wildlife Carers' Centre and fund raising for Native Arc. • Planting reeds at the Neil McDougall Park South Perth turtle habitat. • Developing a management plan for Bull Creek. • Taking part in Clean Up Australia Day activities on Bull Creek Reserve. • Tree planting at Bull Creek for Arbor Day. • Threatened Species Day interpretation activities with local primary schools and Rossmoyne Senior High School. • Waste recycling at Rossmoyne Senior High School. • Propagating of local plant species. • Assisting with native animal husbandry, watering plants, conducting visitor surveys, interacting with the public, badge making, helping Captain Clean Up demonstrate the 3R's at the Perth Royal Show's CALM-sponsored Land Experience exhibit. • Assisting youths new to Australia with an introduction to the Australian bush by the cadets via the Language Integration 'n Culture (LInC) group. • Removing weeds at Harry Waring Nature Reserve. • Maintaining a conservation information notice board at Rossmoyne Senior High School. • Working as guides for primary school students on World Environment Day at The Hills Forest Discovery Centre. • Rehabilitating the Cockburn Wetland Environment Centre grounds. • Volunteering at Malaga Fauna Rehabilitation Centre and undertaking weeding and ground maintenance. • Monitoring of chuditch, woylies and possums as part of CALM's <i>Western Shield</i> program and conducting vegetation surveys pre and post fire at the Perup Reward Camp. • Taking part in the Weed Buster Week including a blitz on wild gladiolus. • Constructing a fire break around the Forest Heritage Centre prior to the program's controlled burn in October.
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<p>Rossmoyne Senior High School (cont)</p>	<ul style="list-style-type: none"> • Completing a control burn around the Forest Heritage Centre, Dwellingup. • Marching in an ANZAC day march at Bull Creek Air Force Association. • Being named finalists in the WA Youth Awards. • Completing the Leeuwin Ocean Adventure Leadership Course. • One ranger completed Certificate II Conservation and Land Management.
<p>Roleystone District High School</p>	<ul style="list-style-type: none"> • Repairing fences, native animal husbandry, collecting spinifex grass for the native animals and interpretation work with the public at Monkey Mia, including feeding the dolphins in the Shark Bay World Heritage area. • Taking part in the film production with Channel Ten Tokyo for a half hour documentary <i>Wildflowers and the CALM Bush Rangers</i>. • Taking part in the Dieback Action Group with Channel 10 Tokyo. • Controlled burning at the Forest Heritage Centre in Dwellingup with CALM's Fire Section. • Planting species for the CALM Bush Ranger Zoo Food project at Hillside Farm near Gosnells. • Manning a CALM Bush Ranger display at the Roleystone District High School Fair. • ANZAC Day commemoration at the school and local community with the Armadale RSL. • Representing the CALM Bush Ranger program at Government House with the Governor General. • Assisting with native animal husbandry, watering plants, conducting visitor surveys, interacting with the public, badge making, helping Captain Clean Up demonstrate the 3Rs at the Perth Royal Show's CALM-sponsored Land Experience exhibit. • Mulching and weeding the school bushland. • Taking part in the Red Cross door knock appeal. • Volunteering at the Cohuna Wildlife Sanctuary feeding native animals. • Plantings trees in the local area as part of National Tree Day. • Volunteering at CALM's National Parks Day in Mundaring. • Volunteering at the Avondale Harvest Festival display with Landcare/Agriculture Department.

<p>Roleystone District High School (cont)</p>	<ul style="list-style-type: none"> • Volunteering at Malaga Fauna Rehabilitation Centre including weeding, and ground maintenance. • Completing first aid competence. • Completing the Leeuwin Ocean Adventure Leadership Course. • International hosting of Balinese students.
<p>Tardun Christian Brothers Agriculture High School</p>	<ul style="list-style-type: none"> • Collecting native seeds. • Owl watching. • Tree planting in salt-affected areas on local farms and for wildlife corridors. • Eremophila rare plant trial germination – including fencing and burning. • Fencing remnant vegetation. • Developing a Unit website. • Frog watching. • Indigenous culture awareness including monitoring local animals without trapping (such as mallee fowls). • Contributing to the Mullewa Show. • Cleaning up rubbish on Kelly Road. • Potting salt bush for planting in local salt-affected areas. • Monitoring local animals by using their tracks and scats to identify them. • Completing the Leeuwin Ocean Adventure Leadership Course.
<p>Warnbro Community High School</p>	<ul style="list-style-type: none"> • Taking part in the Black Swan project – wetland rehabilitation. • Taking part in controlled burns around Forest Heritage Centre at Dwellingup on the Fire Reward Camp. • Monitoring chuditch, woylies and possums as part of CALM's Western Shield program and surveying vegetation pre and post fire on the Perup Reward Camp. • Taking part in the film production with channel 10 Tokyo for a half hour documentary <i>Wildflowers and the CALM Bush Rangers</i>. • Sampling macro invertebrates. • Assisting with visitor interpretation, native animal husbandry, assisting Captain Clean Up, visitor tallying, watering, making conservation badges at the Perth Royal Show's CALM-sponsored Land Experience exhibit. • Saltwatch monitoring.

<p>Warnbro District High School (cont)</p>	<ul style="list-style-type: none"> • Making nesting boxes for parrots and cockatoos. • Yellow fish drain stencilling project. • Cleaning up Monkey Mia and Shark Bay Reserves. • Assisting with the open day at the Rockingham Environment Centre. • Assisting with the open night Warnbro Community High School Information and Direction Services including the rock wall climbing. • Volunteering at Malaga Fauna Rehabilitation Centre and undertaking weeding and ground maintenance. • Completing the Leeuwin Ocean Adventure Leadership Course.
<p>Waroona District High School</p>	<ul style="list-style-type: none"> • Sand dune rehabilitation including brushing and planting at Preston beach. • Designing and building a Unit website. • Completing signage for the Trotter Road reserve. • Rehabilitating the Trotter Road reserve, including tree planting. • Macro invertebrate sampling and chemical monitoring of Drakes Brook at two locations. • Volunteering at the Malaga Fauna Rehabilitation Centre including ground maintenance and native animal husbandry during Regional Camp. • Assisting with native animal husbandry, watering plants, conducting visitor surveys, interacting with the public, badge making, helping Captain Clean Up demonstrate the 3Rs at the Perth Royal Show's CALM-sponsored Land Experience exhibit. • Publishing outcomes from conservation projects in school newsletters, community newsletters and a display in the primary school. • Taking part in an owl watching camp at Ice Creek, Dwellingup. • Completing the Leeuwin Ocean Adventure Leadership Course.
<p>Wongutha Christian Aboriginal Parent Directed School (CAPS)</p>	<ul style="list-style-type: none"> • Rehabilitation of salt-affected land at Wongutha Farm including fencing, weeding and tree planting. • Trapping chuditch, woylies and possums as part of CALM's

Wongutha Christian
Aboriginal Parent Directed
School (CAPS) (cont)

Western Shield program and surveying vegetation pre and post fire on the Perup Reward Camp.

- Collecting native seeds.
- Macro invertebrate monitoring
- Cleaning up Wongutha arboretum.
- Tree planting at the Wongutha arboretum.
- Cleaning up Bromus Dam.
- Propagating native plants.
- **Completing Certificate I in Conservation and Land Management.**



Rossmoyne Senior High School Unit at Penguin Island.

CALM Bush Rangers engage with their communities

As part of their biodiversity conservation and community service activities, CALM Bush Ranger Units engaged with more than 200 community groups and agencies during 2003. Teaming up with these groups adds value, depth and variety to the opportunities that are available to CALM Bush Rangers. It has also helped to strengthen the partnerships between these groups and CALM, which in turn helps to conserve the nature of Western Australia.

CALM Bush Ranger Units link with communities

Albany Senior High School:

CALM, Albany Senior High School community, Naragebup Rockingham Regional Environment Centre, Friends of Mt Clarence, Friends of Mt Adelaide, Fire and Emergency Services Authority (FESA), Albany Agriculture Show, City of Albany, South Coast Progress Association, Payneham Vale Organic Farm, Bush Carer's Group, Friends of Lake Sapping, Programs Association of Lower King and Lower Karlgen, Wildflowers Society of WA, Friends of Mt Melville, Walpole Nornalup National Park Association, Friends of the Porongurup

Chisholm Catholic College:

CALM, Chisholm Catholic School community, Bayswater Integrated Catchment Management, Friends of Baigup, Ribbons of Blue, Cerebral Palsy Association, St Johns Ambulance, Fauna Rehabilitation Centre, Eric Singleton Bird Sanctuary

Coolgardie Christian Aboriginal Parent Directed School (CAPS):

CALM, Coolgardie Christian Aboriginal Parent Directed School (CAPS) community, Leeuwin Ocean Adventure, Coolgardie Wildlife Sanctuary, St Johns Ambulance

City Beach District High School:

CALM, City Beach District High School community, Bold Park

Duncraig Senior High School:

CALM, Duncraig Senior High School community, World Vision, Leeuwin Ocean Adventure, Friends of Libune/Duncraig Bushland

Ellenbrook Christian College:

CALM, Ellenbrook Christian College community, Whitfords Church of Christ, Work Safe, West Swan Volunteer Fire Brigade, Whiteman Park, Bennet Brook Catchment Group, Ribbons of Blue, WA Museum, Leeuwin Ocean Adventure, Orienteering Association, Royal Life Saving, Royal Show Society

Emmanuel Catholic College:

CALM, Emmanuel Catholic College community, Perth Zoo, Kanyana Wildlife Rehabilitation Centre, Tuart Forest Education Centre, WA Gould League, City Of Cockburn, Southern Lakes Drainage Scheme, Frog Watch, Ribbons of Blue, RSL, Fauna Rehabilitation Centre Malaga, Friends of the Bibbulmun Track

Esperance Senior High School:

CALM, Esperance Senior High School community, Salvation Army, Yellow Fish Program, St Johns Ambulance, Leeuwin Ocean Adventure, Department of Agriculture, local charities

Goldfields Baptist College:

CALM, Goldfields Baptist College community, Boulder Cemetery, Leeuwin Ocean Adventure, Salvation Army, Kalgoorlie Boulder Urban Landcare Group, Cancer Foundation

Gosnells Senior High School:

CALM, Gosnells Senior High School, Friends of Mary Carol Park, Kokendin Catchment Group, Harry Waring Reserve, Gosnells Rotary, Ribbons of Blue, Hill Side Farm Education Centre, Malaga Fauna Rehabilitation Centre, Coast Care Sorrento, Perth Zoo, Police and Citizen Youth Club, Armadale/Gosnells Landcare Group

John Forrest Senior High School:

CALM, John Forrest Senior High School community, Bayswater Integrated Catchment Management, Eric Singleton Bird Sanctuary, Air Watch, Rotary, Salvation Army, RSL

John Septimus Roe Anglican Community School:

CALM, John Septimus Roe Anglican Community School community, Variety Club of Western Australia, Salvation Army, Rotary, Leeuwin, Western Power

Katanning Senior High School:

CALM, Katanning Senior High School community, Katanning Landcare and Shire

Kalbarri Senior High School:

CALM, Kalbarri Senior High School community, Simkin Farm, Fire and Emergency Services Authority (FESA), St Johns Ambulance, RSL, Coast Care Community group

Manjimup Senior High School:

CALM, Manjimup Senior High School community, Dean Mill Heritage Trail Committee, Planet Ark, Police and Citizen Youth Club

Mt Lawley Senior High School:

CALM, Mt Lawley Senior High School community, Rotary, Royal Show, Rottnest Island Authority, Ribbons of Blue, Moore River environmental group, AQWA

Mundaring Christian College:

CALM, Mundaring Christian College community, Camp Kerem farm, Whiteman Park and Landcare group

Norseman District High School:

CALM, Norseman District High School community, Newman Police, St Johns Ambulance, Leeuwin Ocean Adventure, RSL, Shire of Dundas/Norseman

Northam District High School:

CALM, Northam District High School

community, Waters and Rivers Commission, Murdoch University, Northam Council, Rotary Club, Leeuwin Ocean Adventure, Northam Show Committee

Newton Moore Senior High School:

CALM, Newton Moore Senior High School community, Rottnest Island Authority, Adopt a Beach Program, South West Rifle Association, Police and Citizen Youth Club, St Johns Ambulance, RSL

Newman Senior High School:

CALM, Newman Senior High School community, Newman Police, Newman Mainstreet project, Arts Council Tourist Centre project, Shire of East Pilbra Tourist Centre project, Newman Tourist Centre project, BHP Billiton rubbish run, Newman Anglican Church, Newman High School native garden committee, Newman Nursery Mart, Newman Aquatic Centre

Rossmoyne Senior High School:

CALM, Rossmoyne Senior High School community, Melville City Council, CRREPER, Native Animal Rehabilitation Centre (ARC), South Perth Council, Perth Zoo, Royal Show Society, Harry Waring Marsupial Reserve, Rogaining Association Murdoch University, Cockburn Wetlands Environment Centre, Leeuwin Ocean Adventure, RSL, St Johns Ambulance

Roleystone District High School:

CALM, Roleystone District High School community, Water Cooperation, Roleystone Dieback Action Group, City of Armadale, Friends of Canning Mill Reserve, Channel 10 Japan, RSL, Red Cross, Cohuna Wildlife Sanctuary, Leeuwin Ocean Adventure, Department of Agriculture, Royal Show Society, Government House

Tardun Christian Brothers Agriculture High School:

CALM, Tardun Christian Brothers Agriculture

High School community, Leeuwin Ocean Adventure, Pindar Landcare, Lesie Telecentre, St Johns Ambulance

Warnbro Community School:

CALM, Warnbro Community School community, Rockingham Environment Centre, Green Skills WA, Police and Citizen Youth Club, Fauna Rehabilitation Centre Malaga, Leeuwin Ocean Adventure, Royal Show Society

Waroona District High School:

CALM, Waroona District High School community, Preston Beach Association, Coast Care, Waroona Shire Council, Landcare, Coast Care, Malaga Fauna Rehabilitation Centre, St Johns Ambulance, Leeuwin Ocean Adventure, Royal Show Society, Ribbons of Blue

Wongutha Christian Aboriginal Parent Directed School (CAPS):

CALM, Wongutha Christian Aboriginal Parent Directed School (CAPS) School community, Dept of Agriculture, St Johns Ambulance, Fire and Emergency Services Authority (FESA), Ribbons of Blue

CALM Bush Ranger Reward Experiences

CALM staff and local community groups are devoted to providing CALM Bush Rangers meaningful conservation experiences and acknowledging the work the cadets undertake as part of the program. The experiences offered to the cadets include CALM's reward program. Exceptionally committed cadets from each Unit go to reward camps where their experience and understanding of nature conservation is extended in a hands-on, exciting environment.

In 2003 these reward experiences included:

- **Working at the Shark Bay World Heritage Area.**
 - o Five Units had the privilege of working beside CALM staff in the captive breeding program, visitor interpretation and national park management. Because of its success, this program is now an annual event that will be held in April and October each year. In 2004, the experience will be broadened to include biodiversity work in the marine park.
- **Completing the Leeuwin Ocean Adventure Leadership Course.**
 - o Forty Bush Rangers took part in the prestigious week-long Leeuwin Ocean Adventure Leadership Course and sailing voyage. Since the course, many cadets have enrolled as volunteers on the boat.
- **Working beside CALM's Science Division staff in *Western Shield* monitoring.**
 - o In spring and autumn each year since 1998, CALM Bush Ranger cadets, selected on merit from eight Swan Region Units, have been given the extraordinary experience of spending a week becoming competent and confident in native animal handling as part of CALM's *Western Shield* program at Perup Nature Reserve.
- **Completing a controlled burn at the Forest Heritage Centre at Dwellingup.**
 - o In 1999, CALM's Fire Management Services began a nationally-accredited course with CALM Bush Rangers culminating in a controlled burn to protect the Forest Heritage Centre in Dwellingup. Each year cadets from six Units are selected to contribute to this community service.
- **Taking part in the production of a half-hour documentary with Channel 10 Tokyo on CALM Bush Rangers.**
 - o Roleystone District High School, John Septimus Roe Anglican Community School, Warnbro Senior High School, Emmanuel Catholic College, Mt Lawley Senior High School and Rossmoyne Senior High School contributed to the production of a half-hour documentary that focused on the involvement of CALM Bush Rangers in the Roleystone Dieback Action Group, a controlled burn at Dwellingup and working as guides at the Perth Royal Show's CALM-sponsored Land Experience exhibit.

CALM Bush Ranger credentials

Many of the CALM Bush Ranger program's 2003 milestones occurred because of its national accreditation and its status of recognition by the Curriculum Council of Western Australia and the Australian National Training Authority (ANTA).

- A significant highlight was when 14 cadets obtained their Certificate II in Conservation and Land Management. Four also completed their Certificate I in Conservation and Land Management. This achievement will appear on the cadets' Western Australian Certificate of Education Curriculum Council Statement of Results.
- A CALM Bush Ranger, from WA's inaugural Unit – Duncraig – was selected

into CALM's prestigious Graduate Recruit program.

- Two CALM Bush Rangers, both Wongi girls, were selected to take part in CALM's award-winning Mentored Aboriginal Training and Employment Scheme (MATES).
- A CALM Bush Ranger from Esperance was given a scholarship to university based on her volunteer work in the nationally-accredited CALM Bush Ranger program.
- It is expected that the option of the Certificate II in Conservation and Land Management will be expanded in 2004 to include the following Units: Rossmoyne Senior High School, Wongutha CAPS, Esperance Senior High School, John Septimus Roe Anglican Community School, Kalbarri District High School, Albany Senior High School and Katanning Senior High School.

Teamwork and leadership

Teamwork and leadership are cornerstones of the CALM Bush Rangers program, with some Units holding leadership camps to highlight the opportunities and responsibilities of their leaders.

Teamwork takes a variety of forms and includes planning conservation expeditions, setting up displays for public events, organising publicity with local media, creating web pages, initiating conservation projects and working in partnership with CALM staff, schools and community groups.

The Leeuwin Ocean Adventure Leadership Course is an integral part of the CALM Bush Ranger program. This year 40 cadets took part in sailing course on HMAS Leeuwin. Working in teams for the week-long voyage, they forged strong relationships with other CALM Bush Rangers committed to biodiversity conservation. Many larger Units divided into 'tribes' and successfully engaged in a healthy degree of intertribal rivalry.

A continuing feature was the opportunity for teamwork and leadership between Units and regions. Examples are listed below.

- o Wongutha CAPS hosted a camp at Bromus dam and included Wongutha and Coolgardie CAPS as well as the Norseman Unit.
- o John Septimus Roe Anglican Community School hosted the Swan Regional Camp for eight Units.
- o Six Units took part in the Dwellingup Fire Reward Camp.
- o Five Units took part in CALM's Science Division Western Shield Reward Camp at Perup Nature Reserve.
- o The Warnbro Unit engaged in a social event with Kalbarri Unit on their expedition to Shark Bay World Heritage area.
- o The Wongutha Unit engaged in a social event with the Albany Unit on the South West expedition.
- o The Gosnells Unit hosted a conservation experience for a local Fire and Emergency Services Authority (FESA) Unit.

Recognition by the community of the CALM Bush Rangers program

Achievements by people involved in the CALM Bush Rangers program were recognised at local, State, national and international levels. In 2003, these included:

- the CALM Bush Rangers program being showcased in a Channel 10 Tokyo half hour documentary *Wildflowers and CALM Bush Rangers*, screened across Japan in February 2004. The program was a finalist in the United Nations' World Environment Awards;
- contributing to federal government research and publications with ANTA;
- receiving a prestigious education award

from the State Minister for Education and Training for its Vocational and Educational Training (VET) initiative;

- a CALM Bush Ranger receiving a scholarship to university, based on volunteer work;
- CALM Bush Rangers receiving government Indigenous trainee positions in CALM's MATES program;
- the program being named as a finalist in the WA Youth awards and Landcare awards;
- being the first youth group to be invited participate in the WA Variety Bash; and
- receiving acknowledgement letters from community groups such as Landcare, catchment groups, 'friends of' groups, show organisers, councils and other government agencies.

The CALM Bush Rangers program: equity and diversity

The CALM Bush Rangers program is an inclusive program for Western Australian youth. It is committed to being a State-wide program made up of young people from all geographic regions. The Office for Children and Youth provide the following diversity information:

- 48 per cent of CALM Bush Rangers are female and 52 per cent are male.
- 46 per cent of CALM Bush Ranger Instructors are female and 54 per cent are male.
- 13 per cent of CALM Bush Rangers are Indigenous.
- Five per cent of CALM Bush Rangers were born overseas or have English as a second language (this includes 10 Indigenous youths).
- One per cent of CALM Bush Rangers has a disability.

The Indigenous youth in the CALM Bush Rangers program are from the following

towns/communities:

- One Arm Point, Beagle Bay, Broome, Fitzroy Crossing (Yakannar, Jawanja, Bayulu Peoples), Kununurra, Coolgardie, Kalgoorlie (Kurrarwang and Ninga Mia Peoples),
- Meekatharra, Northampton, Carnarvon, Mullewa and Geraldton (Yamatji People),
- Port Hedland (Bardi people),
- Warburton Ranges,
- Ngalingkadi Community,
- Mudsprings Community,
- Budyadanga,
- Yakanarra,
- Coolgardie,
- Leonora,
- Bunbury,
- Jigalong,
- Kalumburu,
- Mulan Community,
- Esperance,
- Warmun,
- Djarindjin,
- Cosmo Newberry,
- Derby and
- Perth.



Information supplied from Wongutha and Coolgardie CAPS, Christian Brothers Tardun CALM Bush Ranger Units and John Septimus Roe Anglican Community School.

In 2004, the program's commitment to equity and diversity will see it include the following new Units:

- o the Geographe Education Support Centre for disabled youths;
- o Thornlie Christian College with many youths from Middle Eastern and Asian families; and
- o Warakurna remote Aboriginal community schools.

Communicating CALM Bush Rangers

One of the highlights was the request by Channel 10 Tokyo to film a documentary *Wildflowers and the CALM Bush Rangers* screened across Japan in February 2004. A television crew filmed the CALM Bush Rangers throughout the State in October and November, illustrating the benefits of the program and the types of activities in which Bush Rangers were involved. Five Units were filmed during a controlled burn at the Forest Heritage Centre in Dwellingup, during anti-dieback activities at Roleystone District High School in conjunction with the Roleystone Community Dieback Action Group and while working as guides at the Perth Royal Show's CALM-sponsored Land Experience exhibit.

Other communication highlights included:

- receiving an award from the State Minister for Education and Training for the program's contribution to Vocational Education and Training (VET) and the subsequent publicity in the Department of Educational and Training's *School Matters* magazine and letters and brochures that

were produced and sent to schools;

- the program's contribution to federal government working parties and its mention in publications on youth development with ANTA;
- publicity generated by the United Nations' World Environment Day Awards, Landcare Awards and WA Youth Awards;
- coverage in school newsletters, yearbooks and local newspapers; and
- publicity and public exposure by the Units members who worked at the Perth Royal Show's CALM-sponsored Land Experience exhibit as guides, badge makers and doing interpretation activities.

Our role as a host organisation

CALM is a host organisation within the Cadets WA program and offers the CALM Bush Rangers program to secondary students across Western Australia. It provides direction and realisation to the future of conservation by instilling a conservation ethic in its cadets. It also provides nationally-accredited credentials and the opportunity to develop life skills by:



The Perup Reward Experience is held each spring and autumn.

Community CALM Bush Rangers

CALM Bush Ranger Unit	School newsletter	Newspaper/ magazine articles	Power Point/Video	Intranet/ Internet	Radio/TV	Art work	Photographic history	Displays/talks at shows/ events	School magazines
Albany Senior High School	•	•	•			•	•	•	•
Chisholm Catholic College	•						•	•	•
Coolgardie Christian Aboriginal Parent Directed School (CAPS)	•	•					•		
City Beach District High School	•						•	•	•
Duncraig Senior High School	•		•	•			•	•	
Ellenbrook Christian College	•	•					•	•	•
Emmanuel Catholic College	•			•	•		•	•	•
Esperance Senior High School							•		
Goldfields Baptist College		•					•		
Gosnells Senior High School	•	•	•	•			•	•	•
John Forrest Senior High School	•	•	•	•				•	
John Septimus Roe Anglican Community School	•	•			•		•	•	•
Katanning Senior High School	•	•					•	•	•
Kalbarri Senior High School	•	•	•				•	•	
Manjimup Senior High School			•				•	•	
Mt Lawley Senior High School	•		•	•		•	•	•	•
Mundaring Christian College	•						•		
Norseman District High School	•						•	•	
Northam District High School	•			•			•	•	
Newton Moore Senior High School				•			•	•	
Newman Senior High School	•						•	•	•
Rossmoyne Senior High School	•	•				•	•	•	
Roleystone District High School	•		•			•	•	•	•
Tardun Christian Brothers Agriculture High School	•			•			•	•	
Warbro Community School	•	•	•	•	•		•	•	•
Warroona District High School	•	•		•				•	

- engaging local communities with young people;
- providing a system of reward experiences such as native animal trapping and monitoring as part of CALM's *Western Shield* program, and voyages on the HMAS Leeuwin as part of the Leeuwin Ocean Adventure Leadership Course;
- encouraging more than 90 CALM staff to assist Units on their management committees and provide hands-on experience and opportunities associated with fauna and flora and park management;
- providing work experience opportunities at locations such as Yanchep National Park;
- linking the program opportunities to career development;
- providing professional development for the adult volunteers in the program including an annual in-service; and
- acknowledging its participants – both adult and youth – with internal and external awards and experiential rewards.

For more information on CALM Bush Rangers, please contact:

CALM Bush Ranger Coordinator
Department of Conservation and Land
Management
Locked Bag 104
Bentley Delivery Centre, Bentley, WA, 6983
Email: Bronwynh@calm.wa.gov.au
Tel: (08) 9334 0333
Fax: (08) 9334 0498
TTY:(08) 9334 0546
www.naturebase.net

Professional development

Professional development was provided to Units, CALM's districts and branches and to local communities on an as-need basis. An annual in service for 60 adult instructors was held in Perth. The outcomes achieved included:

- acknowledging the instructors' commitment to the program;
- consolidating the network of instructors across Western Australia;
- exchanging information about conservation and community service projects;
- gaining information about the function and potential links with CALM; and
- gaining knowledge and skills for team building and leadership.

Appendix 1 CALM Bush Ranger Instructors 2003

CALM Bush Ranger Unit	CALM Instructors
Albany Senior High School	Val Davies, Steve Davies
Chisholm Catholic College	Soo Buckle, Debbie Besch, Clive Pickford
Coolgardie Christian Aboriginal Parent Directed School (CAPS)	Darren Moody, Rob Walley, Richard Bourne
City Beach District High School	Chris Froude, Grant Hewson
Duncraig Senior High School	Jason Schroeder, Trish Gilbert, Rob Neumann, Nick Devellerez, Kerry Waller, Maureen Read
Ellenbrook Christian College	Jodie Russell, Carol Smith, Rob de Bie, Robert Morganti, Jodie Theseira
Emmanuel Catholic College	Corrine Mooney, Ronnie Cooper, Nigel Stewart
Esperance Senior High School	Andrew Maccan, Stewart Barker, Julianne Timmers, Betty Lewis
Goldfields Baptist College	Greg Combs, Michelle Combs
Gosnells Senior High School	Lyn Wilkinson, Doug Ridley, Eunice Robinson
John Forrest Senior High School	Steve Bauer, Gerry Fontaine, Ross Mars, Colleen Michel
John Septimus Roe Anglican Community School	Carleen Edwards, George Gorgis, Peter Bowers, Stephen Edwards, Ben Marson, Peter Bowers
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, Colin Craggs, Danielle Hulijich, Steve Raphael, Ann White, Eileen Kuruckchi, Terry Doyle, Anna McCarthy, Israel Spence, Dorothy Roe, Belinda Wykstra
Mundaring Christian College	Jonathon Myers, Cameron Harris, Joanne Goodall
Norseman District High School	Jason Hill, Julie Watson, Naomi Coffey
Northam District High School	Wendy Nelson, David Taylor, Nikki Elton, Margaret Kemsley, Kylie Taylor
Newton Moore Senior High School	Kevin Lloyd, Alla Lloyd, Jo Harrison, Dave Phillips, Jason Shuttoffel
Newman Senior High School	Kevin Fletcher, Gina Frost, Amy De Jong
Rossmoyne Senior High School	Mike Casley, Ann Clemens, Chris Bialkowski, Mark Robinson, Sandra Swain
Roleystone District High School	Paul Huisman, Glenda Huisman, Debbie Goad
Tardun Christian Brothers Agriculture High School	Claire Tutton, Paul Burke, Jesse Quarrington
Warnbro Community School	Kent Chambers, Kevin Watson, David Karcheski, Teresa Parish, Sarah Frame
Waroon District High School	Tom Scotland, Nicole Winstone
Wongutha Christian Aboriginal Parent Directed School (CAPS)	Gary Paul, Wayne Rogan, Harry Graham, Violet Turvey, Helen Edwards, George Turvey, Wayne Harris, Terry Buckley, Annie Dabb, Shane Myer, Herbert Howell, Russ Rogan, Julie Rogan, Murray Smith, Ross Simpson
Total: 114 (52 female, 62 male)	

Appendix 2 CALM staff involved with the CALM Bush Rangers program 2003

More than 100 CALM staff across Western Australia were involved with the CALM Bush Rangers program and offered meaningful conservation experiences and opportunities for community service.

CORPORATE SERVICES DIVISION

PEOPLE SERVICES BRANCH

Risk Management Section

Alicia Taylor Corporate Health Officer
Vanessa Beal Corporate Health Officer

ORGANISATIONAL LEARNING AND DEVELOPMENT

Alan Byrne Coordinator, Organisational Learning and Development
Beth McKernan Assistant Training Officer
Rose Haggett Clerical Officer
Tania Donovan Aboriginal Employment and Development Officer
Peter Hill Learning Programs Consultant

GIS SECTION

Robyn Wilson Manager GIS Applications

NATURE CONSERVATION DIVISION

NATURE CONSERVATION COMPLIANCE SECTION KENSINGTON

Nature Protection Operations

Matt Warnock Regional Wildlife Officer (Herpetofauna)

PARKS AND VISITOR SERVICES DIVISION

PARK POLICY & SERVICES

Land and External Funding Unit

Robert Powell Senior Conservation Estate Officer

REGIONAL PARKS – FREMANTLE

Tim Bowra Regional Parks Coordinator
Chris Mather A/Senior Ranger – Marine Parks

Lyal Woods Reserves Ranger
Jayson Puls Operations Officer (Herdsman Lake)
Stephen King Operations Officer

REGIONAL SERVICES DIVISION

FIRE MANAGEMENT SERVICES BUNBURY

Alex Moylett Fire Training Officer

GOLDFIELDS REGION

Sarah Adriano Reserves Reserves Officer
Bev Gardiner Project Officer
Mark Cowan Regional Ecologist

MIDWEST REGION

Geraldton District

Alana Chant Operations Officer Reserves

Kalbarri National Park

Mike Paxman	Ranger-in-Charge
Lindsay Baker	National Park Ranger
Greg Tapley	Park Maintenance

SHARK BAY DISTRICT

Carl Beck	Parks and Visitor Services Leader
Colleen Simms	Manager (Project Eden)
Nicole Noakes	Peron Captive Breeding Centre Manager
Robert Thorne	Indigenous Trainee
Daniel Cock	Indigenous Trainee
Mark True	Ranger in Charge
Gary Desmond	Park Maintenance Officer
Isaac Hatch	National Park Ranger

Monkey Mia Reserve

Roger Syme	Monkey Mia Reserve Officer
Daniella Hanf	Monkey Mia Reserve Officer
Shannon Hampton	Monkey Mia Reserve Officer
Dave Charles	Monkey Mia Reserve Officer

MOORA DISTRICT

Keith Hockey	District Manager
Gina Broun	Conservation Officer (Flora)
Adam Myer	Wildlife Officer

SOUTH COAST REGION

Martin Lloyd	Regional Parks and Visitor Services Leader
Barb Green	Regional Coastal Facilitator
Sylvia Leighton	Land for Wildlife Officer
Andrea Bidwell	Seasonal Ranger
Brent Barrett	Science Division
Damion Kuret	Reserves Officer South Coast Region

Stirling Range National Park

Karlene Bain	A/District Nature Conservation Officer
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Torndirrup National Park

Luke Coney	A/Albany Parks Manager
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Two Peoples Bay Nature Reserve

Neil Scott	Ranger-in-Charge
Dave Wilson	Nature Reserve Assistant

ESPERANCE DISTRICT

Tilo Massenbauer	Recovery Catchment Officer
Mike Fitzgerald	Nature Conservation Coordinator
Ryan Butler	Conservation Officer (Rare Flora)

Cape Arid National Park

Allan Rose	Ranger-in-Charge
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Cape Le Grand National Park

Geoff Passmore	Ranger-in-Charge (Residence)
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SOUTHWEST REGION

Bunbury

Peter Henderson	Parks and Visitor Services
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Wellington Discovery Forest

Wink Ferris	Education Officer (Wellington Discovery Forest)
Kristy Pengelly	Clerical Officer

BLACKWOOD DISTRICT

Leeuwin Naturaliste National Park

Glenn Willmott	Ranger-in-Charge
Ann Wood	Cave Manager
Tracey Robins	Cave Manager
Terry Marwick	A/National Park Ranger

Margaret River Work Centre

Graham Winfield	Park Maintenance Worker
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SWAN REGION

Paul Brown	District Manager
Phil Smeeton	Parks and Visitor Services Coordinator

Yanchep National Park

John Wheeler	Ranger-in-Charge
Gerald Drummond	Ranger Grounds and Facilities
Paul Tholen	Ranger Nature Conservation
Jason Barrow	Education Coordinator
Nicole Lincoln	Volunteer\Ratis Coordinantor

Waneroo

Glyn Hughes	Overseer
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Penguin Island

Murray Banks	Ranger
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*PERTH HILLS DISTRICT***New Parks**

Dale Kickett	Trainee Park Ranger
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Walyunga National Park

Stephen Strachan	Ranger-in-Charge
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Lane Pool Reserve

Ingrid Hunt	Ranger
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*WARREN REGION**DONNELLEY DISTRICT***Manjimup Work Centre**

Tim Foley	Parks and Visitor Services Officer
Julia Northin	National Park Ranger
Katie Hargreaves	Trainee Ranger
Ian Wison	Nature Conservation Coordinator
Ian Wheeler	Recovery Catchment Officer

*FRANKLAND DISTRICT***Walpole Nornalup National Park**

Kath White	A\Ranger-in-Charge
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*WHEATBELT REGION**NARROGIN DISTRICT*

Kate MacGregor	Reserves Officer
Julie Wyland	Toolibin Recovery Catchment Officer

Narrogin Plant Nursery

Sam MacWilliams	Technical Assistant
Merv Beacham	Overseer

KATANNING DISTRICT

Des Plumb	District Wildlife Officer
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SCIENCE DIVISION

Neil Burrows	Director, Science Division
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HERBARIUM

Paul van Heurck	Technical Officer
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MANJIMUP RESEARCH

Graeme Liddelow	Senior Technical Officer
Bruce Ward	Senior Technical Officer

PILBARA REGION

Karijini National Park

Paul Undinga Ranger

Mike Sermon Ranger

ESPERANCE DISTRICT

Ryan Butler Conservation Officer (Rare Flora)

STRATEGIC DEVELOPMENT AND CORPORATE AFFAIRS DIVISION

CYGNET HALL

Ron Kawalilak Director, Strategic Development and Corporate Affairs

Graphic Design Unit

Gooitzen van der Meer Senior Graphic Designer

Editing

Rhianna Mooney Editorial Assistant

KENSINGTON

Kensington Information Unit

Cheryl Tonts Project Officer, Community-Based Programs

EcoEducation Section

Bronwyn Humphreys Senior Project Officer, CALM Bush Rangers

SUSTAINABLE FOREST MANAGEMENT DIVISION

Abe Van De Sande Senior Interpreter, Dieback Hygiene and Mapping Service
Sustainable Forest Management Division

Kevin Vear Senior Executive Project Officer and Dieback Coordinator

Information obtained from CALM Bush Ranger units

Appendix 3 CALM Bush Rangers Statistics

In 2003, 27 Units, with 945 CALM Bush Rangers and 114 Instructors, contributed 226,897 hours to the program. The Units were made up of 309 Ranger recruits, 268 Rangers, 196 1st Class Rangers, 85 Senior Rangers, 39 Section Leaders, 14 Deputy Unit Leaders and 19 Unit Leaders.

CALM Bush Ranger Unit	Number of Cadets	Rank	Volunteer hours
Albany Senior High School	15	1 Section Leader 2 Senior Rangers 4 1st Class Rangers 6 Rangers 2 Recruits	3,752
Chisholm Catholic College	30	2 Section Leaders 2 Senior Rangers 7 1st Class Rangers 19 Rangers	7,436
Coolgardie Christian Aboriginal Parent Directed School (CAPS)	30	11 Senior Rangers 4 1st Class Rangers 15 Ranger Recruits	3,364
City Beach District High School	16	16 Ranger Recruits	2,820
Dun Craig Senior High School	51	1 Ranger Unit Leader 1 Deputy Ranger Unit Leader 3 Section Leaders 6 Senior Rangers 5 1st Class Rangers 19 Rangers 16 Ranger Recruits	11,915
Ellenbrook Christian College	49	5 Ranger Unit Leaders 5 Deputy Unit Leaders 20 1st Class Rangers 10 Rangers 9 Ranger Recruits	13,824

CALM Bush Ranger Unit	Number of Cadets	Rank	Volunteer hours
Emmanuel Catholic College	58	6 Ranger Unit Leaders 16 Senior Rangers 17 1st Class Rangers 25 Rangers	13,340
Esperance Senior High School	52	1 Unit Leader 2 Deputy Unit Leaders 3 Section Leaders 12 Senior Rangers 20 1st Class Rangers 14 Ranger Recruits	10,014
Goldfields Baptist College	19	3 1st Class Rangers 7 Rangers 9 Ranger Recruits	2,600
Gosnells Senior High School	30	8 Senior Rangers 8 1st Class Rangers 17 Ranger Recruits	10,890
John Forrest Senior High School	37	1 Ranger Unit Leader 1 Deputy Ranger Unit Leader 3 Section Leaders 2 Senior Rangers 8 1st Class Rangers 8 Rangers	6,437
John Septimus Roe Anglican Community School	60	1 Ranger Unit Leader 2 Deputy Ranger Unit Leaders 3 Section Leaders 2 Senior Rangers 5 1st Class Rangers 10 Rangers 37 Ranger Recruits	34,360
Katanning Senior High School	12	2 Senior Rangers 3 1st Class Rangers 2 Rangers 5 Ranger Recruits	1,599

CALM Bush Ranger Unit	Number of Cadets	Rank	Volunteer hours
Kalbarri Senior High School	15	3 Section Leaders 4 Rangers 8 Ranger Recruits	3,364
Manjimup Senior High School	22	2 Section Leaders 2 Senior Rangers 2 1st Class Rangers 16 Rangers	3,150
Mt Lawley Senior High School	65	5 Section Leaders 60 Rangers	14,341
Mundaring Christian College	23	5 1st Class Rangers 18 Rangers	5,120
Norseman District High School	23	1 1st Class Ranger 6 Rangers 16 Ranger Recruits	3,666
Northam District High School	41	1 Ranger Unit Leader 4 Ranger Section Leaders 5 Senior Rangers 3 1st Class Rangers 6 Rangers 21 Ranger Recruits	14,316
Newton Moore Senior High School	47	4 Section Leaders 7 Senior Rangers 13 Ranger 1st Class 23 Ranger Recruits	13,823
Newman Senior High School	36	19 Rangers 17 Ranger Recruits	6,178
Rossmoyne Senior High School	32	1 Ranger Unit Leader 4 Ranger Section Leaders 3 Senior Rangers 5 1st Class Rangers 6 Rangers 10 Ranger Recruits	7,600

CALM Bush Ranger Unit	Number of Cadets	Rank	Volunteer hours
Roleystone District High School	27	1 Ranger Unit Leader 15 1st Class Rangers 11 Ranger Recruits	4,687
Tardun Christian Brothers Agriculture High School	36	8 Senior Rangers 10 Rangers 18 Ranger Recruits	5,648
Warnbro Community School	50	5 Section Leaders 30 1st Class Rangers 15 Ranger Recruits	9,880
Waroonna District High School	16	3 1st Class Rangers 7 Rangers 6 Ranger Recruits	3,791
Wongutha Christian Aboriginal Parent Directed School (CAPS)	53	1 Unit Leader 2 Deputy Unit Leaders 5 Section Leaders 5 1st Class Rangers 10 Rangers 30 Ranger Recruits	25,156
Total	945	19 Unit Leaders 14 deputy Leaders 39 Section Leaders 85 Senior Rangers 196 1st Class Rangers 268 Rangers 309 Ranger Recruits	226,897

Information supplied by each Unit.



CALM Bush Rangers Equity and Diversity Statistics

Aboriginal Unit/ School name	Yr 8 male	Yr 8 female	Yr 9 male	Yr 9 female	Yr 10 female	Yr 10 female	Yr 11 female	Yr 11 female	Yr 12 male	Yr 12 female	Other male
Albany SHS	2	1	2	4	4	1	1				
Chisholm CC	4	4	3	3	4		3	9		1	
City Beach HS	3		3	5	3						
Coolgardie CAPS	8	6	5	6	3	1	3	4			
Dun Craig SHS	7	9	13	6	4	8	4				
Ellenbrook CC	18	7	7	5		3					
Emmanuel CC	12	9	5	13	9	9					
Esperance SHS			11	19	10	9	2	1			
Goldfields BC		5	2	3	3	3	3				
Gosnells SHS	7	5		7	1	2	5	2	1	1	
John Forrest SHS	11	6		2	1	9	2		3	3	
John Septimus	20	16	4	2		5	1	5	3	2	
Kalbarri DHS	4	3	2	4	3	2					
Katanning SHS	3	3	4		1	1					
Manjimup SHS	4	1	3	1	3	1	2	2	1	2	
Mount Lawley SHS	22	16	6	2	5	6					
Mundaring Christian College	11	11									
Newman SHS	5	5	11	6	5	5					
Newton Moore SHS			8	16	5	6	1	7	3		
Norseman DHS	6	4	7	1	3						
Northam SHS	8	4	6	5	4	4		5	1	4	
Roleystone DHS	3	5	1	2	4	3	1	8			
Rossmoyne SHS	7	6	4		7	3		6	4	1	
Tardun CBAS	10	5	10		7						
Warnbro CHS	9	6	8	9	9	9	2	1			
Waroona DHS	5	3	6	2		4	1				
Wongutha CAPS							29	23	1	4	
TOTALS	189	140	131	123	98	94	60	73	17	18	

	Other female	Total male	Total female	Total cadets	Male staff	Female staff	Total staff	Aboriginal	Torres Strait	Born overseas	Language	Disability
		9	6	15	1	1	2	1				
		14	17	31	2	2	4				7	
		9	5	14	1	2	3			1	1	
		19	17	36	3	1	4	34				
		28	23	51	3	2	5	1		7	3	3
		25	15	40	1	2	3	1		5		
		26	31	57	1	2	3			2	8	
		23	29	52	2	2	4	4				
		8	11	19	1	1	2					
		14	17	31	1	2	3					
		17	20	37	3	1	4					
		28	30	58	5	1	6					
		9	9	18	1	1	2					1
		8	4	12	1	1	2					
		13	7	20	1	1	2	1				
		33	24	57	4	2	6					
		11	11	22	2	1	3					1
		21	16	37	2	3	5	2		7		
		17	29	46	3	2	5					
		16	5	21	1	2	3	3		1		1
		19	22	41	1	4	5					4
		9	18	27	1	2	3					1
		22	16	38	2	3	5					
		27	5	32	3	1	4	14				
		28	25	53	3	1	4	2				1
		12	9	21	1	1	2	1		1		
		30	27	57	11	5	16	56			10	
		495	448	943	61	49	110	120		24	29	12