

CALM BUSH RANGERS



ANNUAL REPORT 2002



Front cover: Pictured (left to right) are CALM Bush Rangers from Wongutha Christian Parent-Directed School at Perup Nature Reserve, Bush Rangers from Newton Moore Senior high school working on a Western Shield baiting and monitoring program; a woylie, one of the endangered animals brought back from the brink of extinction by the Western Shield baiting program; a Wongutha Bush Ranger at Perup Nature Reserve, and Bush Rangers from Chisholm Catholic College harvesting the salvina weed from Perth wetlands. Photos by Bronwyn Humphreys, Soo Buckle and Mark Robinson.

CALM BUSH RANGERS WESTERN AUSTRALIA

A PATHWAY FOR YOUTH ACTION IN BIODIVERSITY CONSERVATION ANNUAL REPORT 2002

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1 SUMMARY

Each week across Western Australia more than 1,000 CALM Bush Rangers – secondary school students aged 13 to 17 – take part in community conservation projects.

In 2002, they spent more than 200,000 volunteer hours on the study of nature conservation and on these projects, assisted by 114 volunteer adult instructors and 90 Department of Conservation and Land Management staff.

Activities between Bush Ranger units throughout the State consolidated a strong conservation network of young people. Because many young people and adults have been associated with their Bush Ranger units from when the units were formed, the Bush Rangers program has a distinctive place in schools and communities.

One of the year's milestones was the successful trial of the nationally accredited 'Certificate II Conservation and Land Management' at Rossmoyne Senior High School's Bush Ranger unit. Twelve cadets had the Certificate placed on their Western Australian Certificate of Education in Year 12. This will be expanded in 2003 to the Wongutha and Coolgardie CAPS schools.

Pathways for employment in natural resource management, for all participants, including indigenous youth, are an implicit part of the CALM Bush Ranger program. This year, they were highlighted by visits to Units by Departmental staff who were positive role models, one of the most notable being by former AFL player, Dale Kickett.

CALM Bush Rangers were recognised and acknowledged for their service to the community by:

- winning awards and being finalists in the Western Australian Youth Awards, receiving testimonials, receiving commendation letters from community conservation groups, and
- having their work showcased in Commonwealth Government publications.

Departmental staff rewarded CALM Bush Rangers' commitment with a range of exceptional experiences including:

- working with bilbies at the Shark Bay World Heritage area,
- trapping animals as part of the Department's Western Shield program in the southern forests, Mid-West and Wheatbelt, and
- taking part in controlled burning operations.



Wongutha CAPS CALM Bush Rangers Unit

2 BACKGROUND

This is the fourth year the CALM Bush Rangers program has operated as part of the Government's Cadets WA program. The program fosters competence in life skills such as teamwork and leadership and, within the CALM Bush Rangers network, a conservation community service objective.

A table showing the extensive community service each Unit has achieved, and the community partnerships they have formed, is on pages 7 to 12.

The number of Departmental staff contributing to the program doubled from 2001. Staff organised reward experiences, participation on management committees, inclusion on nature conservation projects and links to national park management.

CALM Bush Rangers Units

Number and distribution of the three sectors in education

Year	Govt. SIDE	Govt. SHS	Govt. DHS	Catholic Schools	Independent School	Total
1998	-	2	-	-	-	2
1999	-	7	1	2	1	11
2000	1	10	5	3	3	21
2001	1	12	7	5	5	29
2002	-	15	6	4	5	28

Two thirds of the Units are from government schools. Half the Units are from rural and remote schools, and half from the Perth metropolitan area.

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

CALM Bush Ranger Units are now located in every geographical region of the State. The Pilbara and Kimberley regions are represented by one Unit at Newman. Boarding schools such as Wongutha CAPS (Esperance), Coolgardie CAPS (Kalgoorlie) and Christian Brothers Agricultural College, Tardun (Mid West) are also represented. Maps on pages 4 and 5 show the location of participants in Western Australia.



Chisholm Catholic College CALM Bush Rangers Unit

2002

Distribution of CALM Bush Rangers attending boarding schools in Western Australia



2002

Location of CALM Bush Ranger Units in Western Australia



3 CONSERVATION AND COMMUNITY SERVICE – OUR COLLECTIVE ROLE

CALM Bush Ranger conservation community service projects reflect – in partnership with the community – the Department of Conservation and Land Management's work to conserve the nature of Western Australia.

Biodiversity conservation projects carried out by CALM Bush Rangers include:

- tackling salinity issues, including tree planting and water conductivity monitoring in the Wheatbelt,
- taking part in the Department's Western Shield project by monitoring native animals in the South-West forests, Wheatbelt, Stirling Ranges and Kalbarri National Park,
- completing a nationally accredited fire course including taking part in controlled burning operations, and
- working with community groups to control dieback.

Units also contributed to managing wetlands of national and international importance including Thompson Lake in Perth and Rowles Lagoon in the Goldfields. This work is expanding each year.

CALM Bush Rangers are also assisting in the rehabilitation of native animals in conjunction with the Department's volunteer carers including the Malaga Fauna Rehabilitation Centre, Armadale Reptile and Wildlife Centre, Native Arc at Bibra Lake and the Albany Wildlife Welfare Association.

Visitor surveys were conducted in five areas managed by our Department.

CALM Bush Rangers joined celebrations for World Environment Day, Arbor Day and Threatened Species Day, conducting interpretation experiences at local primary schools, often with Departmental wildlife officers. They took part in major field days and shows with more than 70 CALM Bush Rangers from 10 Units assisting with the Land Experience at the Perth Royal Show.



Roleystone District High School CALM Bush Rangers Unit

The partnerships Units have developed with their local community conservation groups and agencies are extensive. Details of each Unit's conservation community service and their community partnerships are given below.

***Department = Department of Conservation and Land Management**

CALM Bush Ranger Unit	Conservation community service projects	Community involvement
Albany Senior High School	<ul style="list-style-type: none"> • Assistance in creating Departmental display for Albany Show • Brushing with national park rangers in Two Peoples Bay • Trapping native animals at Stirling Range National Park • Mapping a new walk trail Mt Hassell with GPS • Wetland monitoring • Caring for orphaned joey • Spotlighting for possums • Owl watching • Weed busters week display assistance at Albany Show • Great Marsupial Night Stalk Mt Clarence and Mt Adelaide with local primary schools and community • Marine Community Monitoring program • 'Shame us' sculpture • Tree planting at Middleton Beach • Tree planting at Lake Seppings • Erosion control at Gull Rock Reserve • Weeding and planting at Black Swan Reserve • Weeding and litter control at 'Land for Wildlife' site • Albany Senior High School • Kangaroo trail marking Stirling Range retreat 	<ul style="list-style-type: none"> School Department Albany Department Stirling Ranges Department Two Peoples Bay Coastwest Coast care Agriculture Dept Land For Wildlife City of Albany Waters and Rivers Commission South Coast Progress Association Bush carers' group Friends of Mt Clarence Friends of Mt Adelaide Friends of Lake Sepping Progress Association of Lower King and Lower Kalgan Wildflower Society Friends of Mt Melville
Chisholm Catholic College	<ul style="list-style-type: none"> • Revegetation with native plants • Weeding and litter clean up on the Chisholm stormwater drain • Building and erecting nesting boxes • Removal of aquatic Salvinia from the Swan River • Western Shield Program Hills Forest • Native animal husbandry work at Fauna Rehabilitation Centre Malaga • Smoking native seeds at Mullewa • Mallee fowl nesting monitoring • Land Experience at the Royal Agricultural Society Show 	<ul style="list-style-type: none"> Bayswater Integrated Catchment Management (BICM) Fauna Rehabilitation Centre Malaga Eric Singleton Bird Sanctuary City of Bayswater Friends of Baigup Bushcare officer Mullewa Royal Agricultural Society
Coolgardie Christian Aboriginal Parent-Directed School (CAPS)	<ul style="list-style-type: none"> • Goongarie Reserve open day • Plant native garden • Goongarie mallee fowl walk trail maintenance, sign erection • Link to Kalgoorlie Urban Landcare • Munglinup trail maintenance • Rowles lagoon activities 	<ul style="list-style-type: none"> School Department Kalgoorlie Herald Mining Munglinup Landcare group
City Beach International School	<ul style="list-style-type: none"> • Cambridge coast care rehabilitation • Worm farm recycling • Shade house construction • Native garden at school • Peer teaching about recycling 	<ul style="list-style-type: none"> School Department Bold Park Cambridge Coast care
Duncraig Senior High School	<ul style="list-style-type: none"> • Malaga Fauna Rehabilitation centre native animal maintenance • Clean up Australia • School bushland management – weeding and planting • Monitoring native animals at Perup Nature Reserve • Perth Royal Agricultural Society Show Land Experience assistance 	<ul style="list-style-type: none"> School Department Malaga Fauna rehabilitation Centre Keep Australia Beautiful Royal Agricultural Society

CALM Bush Ranger Unit	Conservation community service projects	Community involvement
Ellenbrook Christian College	<ul style="list-style-type: none"> • Feral cat control in urban areas (RSPCA project) • Fauna Rehabilitation Centre native animal husbandry • ANZAC Day service with Ellenbrook community • Great marsupial night stalk • Creating a web site • Competing in the State Schools Orienteering Championships 	<p>School, RSPCA Department RSL, Ellenbrook Development Malaga Fauna Rehabilitation Centre</p> <p>Sate Schools Orienteering Association</p>
Emmanuel Catholic College	<ul style="list-style-type: none"> • Animal husbandry and clean up at Native Arch Animal Rehabilitation, Bibra Lake • Maintaining turtle tunnels, constructing and maintaining shaded areas for turtles and ducks, repairing fences • Weed eradication, fauna and flora monitoring at Thompson Lake Ramsar site • Termite harvesting for the numbat breeding program at Perth Zoo • Working on native animal husbandry, building enclosures and construction of walkways at Fauna Rehabilitation Centre, Malaga • Work experience at Yanchep National Park • Frog monitoring at Lake Yangebup • Great marsupial night stalk at Thompson lake • Creating a threatened species booklet for primary students • Water monitoring at lake Yangebup • Tree planting on Little Rush lake • Revegetation of lake Yangebup • Creating a local herbarium • ANZAC Day parade City of Cockburn • Western Shield presentation and display • Communicating conservation biodiversity to local primary school students for threatened species day • Park Visitor surveys at five national parks • Shade House maintenance • Growing Zoo food 	<p>Native Arch animal rehabilitation</p> <p>Perth Zoo</p> <p>Malaga Fauna Rehabilitation Centre City of Cockburn</p> <p>WA Museum frogwatch Water Corporation RSL Success Fire Department Chubb Training Services</p>
Esperance Senior High School	<ul style="list-style-type: none"> • CALM Community tree planting on local farms for salinity 3000 • Completion of the underwater dive trail around Woody Island • Erosion prevention at Cape Le Grand National Park • Establishing fire breaks on Woody Island • Great marsupial Night Stalk • Yellow fish storm water stencilling • School recycling • Collecting pine cones for the elderly (community service) • Christmas gift recycling (community service) 	<p>School Department Esperance Weed Action Group Community based underwater monitoring Local Environment Action Forum Pink Lake Fire Brigade Esperance Fire and Rescue State Emergency Service Esperance Goldfields Surf Club Gail Yorkshire, Local Aboriginal Elder Curtin University Dept Agriculture</p>
Goldfields Baptist College	<ul style="list-style-type: none"> • Weeding and installation of bollards and tables at Rowles Lagoon Ramsar wetland • Weed removal at Boulder cemetery • Karlkurla Park- park interp guides with local school groups • Photographic essay of the Unit conservation projects • Unit Web site construction and maintenance 	<p>School Department Kalgoorlie Boulder Landcare group Karlkurla Park</p>

CALM Bush Ranger Unit	Conservation community service projects	Community involvement
Gosnells Senior High School	<ul style="list-style-type: none"> • Plant propagation and planting at Mary Carrol Park • Salinity action tree planting for Beverley Landcare group • Monitoring native animals at Perup Nature reserve (Western Shield) • Clean-up, maintaining fire breaks, clearing tracks, • Cleaning reptile enclosures, trapping feral cats at Harry Waring Reserve • Yellow fish project – clean drains • Ring Pull project – community service for war victims in Thailand • Naragebup/Rotary • Freeway extension revegetation planting • Paper recycling at school • Owlwatch – survey at Northam • Seed propagation 13 local species Armidale reptile centre 	<p>School Department Friends of Mary Carol Reserve</p> <p>Harry Wearing reserve Beverley landcare/ Kokendin Catchment group</p> <p>City of Gosnells Rockingham Rotary Naragebup Environmental Centre Rockingham Gosnells Rotary</p> <p>Leeuwin training ship Royal Show society Planet Ark national Tree Day</p>
John Forrest Senior High School	<ul style="list-style-type: none"> • Clean up Australia day • Earthworm farms production • Local revegetation • Collecting food fodder for Peth Zoo • Seed propagation • Water monitoring 	<p>School Department BICM</p>
John Septimus Roe Anglican Community School	<ul style="list-style-type: none"> • Malaga Fauna Rehabilitation native animal husbandry, enclosure construction, Open Day assistance • Marine Community monitoring Marmion Marine Park • Royal Show Land Experience assistance • Ninth statewide solar car challenge • Eradication of non native plant species at Rottnest Island 	<p>School Department Malaga Fauna Rehabilitation Centre Royal Agricultural Show Society Rottnest Island Authority</p>
Katanning Senior High School	<ul style="list-style-type: none"> • Police reserve tree planting on national tree day • Harmony Day multicultural festival fundraising to buy nesting box equipment • Bird box construction for Police Pools Reserve • Clean up Australia Day • John's Well Reserve pit trap repair • Lake Magenta Western Shield monitoring including chuditch and mallee fowl • Orchid survey • Stirling Ranges National Park flora and fauna surveys • Leeuwin Ocean Adventure 	<p>School Department Katanning Police Noongar Elder Dept Agriculture Katanning Council Landcare Katanning</p> <p>Leeuwin Katanning wildlife carer</p>
Kalbarri District High School	<ul style="list-style-type: none"> • Trapping and monitoring in Junga Dam area (Western Shield) • Trapping and monitoring in Kalbarri National Park (Western Shield) • Revegetation at Hawks Head • Creating a local species fauna book • BMX Bike track construction • ANZAC Day Colour Party Kalbarri • Fauna Rehabilitation Centre Malaga -- native animal husbandry 	<p>Department Kalbarri Botanical Society of Kalbarri PCYC Kalbarri Kalbarri RSL Fauna Rehabilitation Malaga</p>

CALM Bush Ranger Unit	Conservation community service projects	Community involvement
Manjimup Senior High School	<ul style="list-style-type: none"> • Tree planting and weeding at Dean Mill Heritage Trail • Building park benches for King Jarrah reserve • Community service graduation at school • Building park benches for school (community service) • Cave restoration at Margaret River • Painted board walks in national park, Hamelin Bay • Constructed stairs and safety barriers at King Jarrah Reserve • Ecology centre maintenance at Perup Nature Reserve 	<p>School Department Dean Mill Heritage trail committee Red Cross</p>
Mt Lawley Senior High School	<ul style="list-style-type: none"> • Planting reeds at Fauna Rehabilitation Centre Malaga • Native garden work at Mt Lawley SHS • Sand dune brushing, seed collection and litter reduction at Rottnest Island • Owlwatch Northam 	<p>School Department Fauna Rehabilitation centre Malaga Rottnest Is Authority</p>
Mullewa District High School	<ul style="list-style-type: none"> • Creek rehabilitation • Groundwater monitoring 	<p>School Department St Johns Ambulance Bush care</p>
Norseman District High School	<ul style="list-style-type: none"> • Rehabilitation of gardens at Norseman • Rehabilitation of pathways Yanchep National Park 	<p>School Department Yanchep Department Esperance</p>
Northam Senior High School	<ul style="list-style-type: none"> • Clean up Australia Day • Water monitoring – Avon River • Saltwatch testing for salinity action • Tree planting – Avon River • Tree planting Multi-Versity site Katrine • Owlwatch Katrine • Work experience – Yanchep National Park • Youth Door Knock Appeal • Dowerin Field Day • Northam Show with native animal carers • Shark Bay – Project Eden - animal husbandry with bilbies • Inter Unit owl watch Northam • Monitoring woylies, chuditch, possums at Perup Nature Reserve (Western Shield) • Rossmoyne leadership camp • Regional camp including Fauna Rehabilitation Centre Malaga • Leadership camp Manna Flats • Dwellingup fire course • Recruit camp Maana Flat 	<p>School community Department Friends of the Avon River Native Fauna Rehabilitation Grass Valley Tao Community Katrine Water and Rivers Comission</p>
Newton Moore Senior High School	<ul style="list-style-type: none"> • Marine aquarium fish species education program, including constructing a filtering system and stocking • Bring back the butterfly program – local species initiative • Litter reduction campaign • Water quality monitoring Bellemore Park pond • Photographic essay of 'The Dragons Lump' reef • Adopt a beach – Hastie St Beach • Rottnest Island clean up 	<p>School Department Rottnest Is Authority</p>

CALM Bush Ranger Unit	Conservation community service projects	Community involvement
Newman Senior High School	<ul style="list-style-type: none"> • Team building and leadership projects and activities for the new Unit including camps at Karajini National Park and the Dampier Archipelago • Flora and fauna surveys at Karajini National Park 	School
Rossmoynne Senior High School	<ul style="list-style-type: none"> • Rehabilitation work in Bull Creek Reserve • Rehabilitation of the Canning River including growing local plant species and planting them on the foreshore • Eradication of blackberry and other weeds on the Canning River • Bibra Lake Wildlife Carers (Native Arc) fundraising • Clean up Australia Day in Bull Creek area • Arbor Day Bull Creek planting • Threatened Species Day visit to local primary schools with Departmental wildlife officers • Zoo food collection of the Sydney wattle weed for the giraffes • Recycling within the school • Shade house maintenance and propagation • Royal Agricultural Society Show 'Land Experience' assistance • Environment Centre projects including worm farms, composting • Owlwatch at Northam • Harry Marsupial Reserve maintenance • Environmental notice board at Rossmoynne SHS – display • Work Experience Yancheper national park • Penguin Island Community service 'sand bagging' • Calgarup Cave community service – human chain bringing two tonnes of equipment into cave • Western Shield trapping with Science Division Perup Nature Reserve • Bird Atlas work North Lake • Web site development www.rossmoynne.wa.edu.au – special programs • Posters and power-points for displays • Owl CD ROM production 	<p>School</p> <p>Department Dryandra Department Penguin Island Department Wildlife Section Department Woodvale Department Yancheper National Park Department Walyunga National Park Department Calgardup Caves Department Science Division Manjimup Department Fire Services Department Herbarium Leeuwin Ocean Adventure St Johns Ambulance Kanyana Wildlife Rehabilitation Centre Royal Agricultural Society Harry Waring reserve officer Native Arc Melville Council Perth Zoo CRREPA Greening WA RSL AUSYOUTH Margret Hubery retirement village</p>
Roleystone District High School	<ul style="list-style-type: none"> • Mullewa inter-unit event • Royal Agricultural Society Show assistance • Control burn Dwellingup • Trapping native animals and vegetation surveys at Perup Nature Reserve (Western Shield) • Regional camp including helping at the Fauna Rehabilitation Centre Malaga • National Tree Day at Roleystone • Owlwatch inter Unit event at Northam • Adopt a Dibbler project Perth Zoo • Leeuwin Ocean Adventure • Roleystone Fair CALM Bush Rangers display • Clean up Australia Day at Roleystone • Armadale Reptile and Wildlife Centre volunteering • Cohuna wildlife rehabilitation volunteering • Red Cross Door Knock Appeal • Raptor activities with WA Conservation of Raptors group • Weeding Ellis Reserve 	<p>School</p> <p>Department Red cross Leeuwin Ocean Adventure Fauna Rehabilitation Centre Malaga</p> <p>City of Armidale Roleystone Dieback Busters Cohuna wildlife park Araluen park Friends of Canning Mills reserve Armadale reptile park Perth Zoo KAB</p>

CALM Bush Ranger Unit	Conservation community service projects	Community involvement
Roleystone District School (cont)	<ul style="list-style-type: none"> • Weeding with Friends of Canning Mills reserve • Dieback activity with Roleystone Dieback Busters • Araluen planting • Father Brian Bali appeal • Japanese cultural exchange • School leadership events – eg. weeding Watsonia, Melissa's • Market Day fund raising for cancer 	
Tardun Christian Brothers Agricultural school	<ul style="list-style-type: none"> • Native animal husbandry at Kembla Wildlife, Mullewa • Mallee fowl nest survey • Revegetation tree planting for salinity control Mullewa district (thousands of trees) • Biodiversity survey (both flora and fauna) for the Mullewa district catchment group including trapping and bird mist netting • Seed germination trails by smoking method • Frog survey and pond construction • Salinity survey of upper Irwin River • Farm conservation projects such as weeding • Clean up and maintenance of the CBAS Bush Rangers cadet headquarters and surrounds • Leeuwin 	<p>School Department Kembla Wildlife carers Mullewa Bushcare Curtin University, Dr Stephen Davies, scientific consultant for the Mullewa catchment</p> <p>Leeuwin sailing ship</p>
Ursula Frayne Catholic College	<ul style="list-style-type: none"> • Malaga Fauna Rehabilitation Centre animal husbandry • Monitoring at Perup Nature Reserve (Western Shield) • Clean up Australia Day • Royal Agricultural Society Show assistance • Rotary talk • Leeuwin Ocean Adventure 	<p>Malaga Fauna Rehabilitation Rotary Vic park Royal Show Society</p>
Warnbro Community School	<ul style="list-style-type: none"> • Edison Mission tree planting • Assisting with the Rockingham Environment Centre Open Day 	<p>School Department School Rockingham Environment Centre</p>
Waroona District High School	<ul style="list-style-type: none"> • Trotter Rd Reserve revegetation with Landcare • Trapping at Perup Nature Reserve (Western Shield) • Ribbons of Blue at Drakes Brook, CALM Margaret River • Royal Agricultural Society Show Land Experience assistance • Torchbearers Legacy Appeal • Leeuwin Ocean Adventure Cert II leadership 	<p>School Department Manjimup Peel Landcare group Ribbons of Blue, Water and Rivers Commission Shire of Waroona Alcoa Hamel Nursery Marrinup nursery</p>
Wongutha Christian Aboriginal Parent-Directed School (CAPS)	<ul style="list-style-type: none"> • Wongutha Arboretum creation • Seed collection and preparation from Wongutha • Weeding by hand, spray and fire techniques at the arboretum • Wetlands restoration on Wongutha • Clean up Esperance • Clean up Bromus dam • Wongutha CBR song on CDROM • Wongutha CBR banners 	<p>School Department – Kensington Department Esperance and local national parks Bob Cooper's survival course</p>

4 DUE CREDIT

CALM Bush Rangers is a nationally accredited program giving students the option of obtaining a nationally accredited 'Certificate II Conservation and Land Management' and a 'Certificate II of Leadership'. The program has been mapped to the WA 'Curriculum Framework' across Overarching Outcomes, Science, English, Society and Environment, and Technology and Enterprise. This work is continuing.

The Certificate II Conservation and Land Management was successfully trialed by the Rossmoyne Senior High School CALM Bush Ranger Unit in 2002. The initial 12 CALM Bush Rangers were the first cadets in the Cadets WA program to gain the qualification on their 'West Australian Certificate of Education' at the end of Year 12. Each of these Bush Rangers has been in the program for four years and contributed more than 500 volunteer hours to the study of nature conservation and to conservation projects. The option of the Certificate is being broadened in 2003 to include the Wongutha and Coolgardie Christian Aboriginal Parent-Directed School (CAPS) Units.

Key partnerships are recognised in the process of this trial, especially with the Education Department of Western Australia and The Primary Industry Training Council.

The program is seen nationally as ground breaking in the youth development accreditation sphere. The Australian National Training Authority (ANTA) and the Federal Government organisation AUSYOUTH have documented the progress of CALM Bush Rangers in their publications.



Rossmoyne Senior High School CALM Bush Rangers Unit

5 COMMUNICATING

Units communicate to their communities by publishing newsletters, organising displays at field or show days, and by setting up internet and intranet sites.

Such communication showcases the CALM Bush Rangers' community partnerships, teamwork and leadership.

The public's response to this communication is a positive experience for the Units and enhances perceptions of the Department, with improved communication increasing the awareness and understanding of biodiversity issues for Rangers and the community.

A communication highlight of 2002 was the dedication shown by more than 70 CALM Bush Rangers from 10 Units who worked at the RAS Perth Royal Show for 10 days, showcasing their knowledge of biodiversity conservation at the Landcare Pavilion.



Wongutha CAPS CALM Bush Rangers Unit

Unit	Newspaper/magazine articles	Radio/TV	Internet/Intranet	newsletters	School Annual magazine	Art work	Displays	Photo history	Power Point
Albany Senior High School	•			•		•	•	•	
Chisholm Catholic College	•			•	•		•	•	
Coolgardie Aboriginal Parent Directed School CAPS	•			•		•	•	•	
City Beach International School			•	•	•	•		•	
Duncaig 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				•		•	•	•	
Kalbarri District High School	•	•		•		•	•		
Katanning Senior High School	•	•		•					
John Septimus Roe Anglican Community School				•	•		•	•	
Manjimup Senior High School				•				•	
Mt Lawley Senior High School			•	•				•	
Mullewa District High School				•				•	
Norseman District High School				•				•	
Northam Senior High School	•		•	•			•	•	
Newton Moore Senior High School				•				•	
Roleystone District High School	•			•	•		•	•	
Rossmoyne Senior High School	•		•	•		•		•	
Tardun Christian Brothers Agricultural School	•			•		•	•	•	
Ursula Frayne Catholic College	•		•	•		•	•	•	
Warnbro Community High School	•			•			•	•	
Waroon District High School	•			•				•	
Wongutha Christian Aboriginal Parent Directed School (CAPS)	•			•			•	•	

6

ASPECTS OF TEAMWORK AND LEADERSHIP

CALM Bush Rangers work in teams to achieve their conservation community service projects, not only as a team within their Units but in inter-unit and regional teams.

During a weekend, eight Units (about 200 CALM Bush Rangers) in the Swan District contributed to native animal husbandry and maintenance at the Fauna Rehabilitation Centre in Malaga.

More than 70 contributed their volunteer assistance at the Royal Agricultural Society Perth Royal Show's Landcare Pavilion while six Units contributed to owl monitoring in Northam.

CALM Bush Rangers have described the benefits from leadership development within the program as contributing significantly to intrinsic confidence in themselves. Outwardly, the results include confidence to manage a team, to speak in public, to apply for part time work, to reach to higher training than they thought originally was possible, overall enjoyment and a positive outlook.

Units have specific leadership camps. Each year the Units select Rangers for the six day 'Certificate II of Leadership' sailing on the Leeuwin with 40 Rangers from across Western Australia.



Newton Moore Senior High School
CALM Bush Rangers Unit



Rosmoyn Senior High School CALM Bush Rangers Unit

7

RECOGNITION OF CALM BUSH RANGERS BY THE WESTERN AUSTRALIAN COMMUNITY

Formal and informal recognition of the community service undertaken by the CALM Bush Rangers in 2002 included:

- being a finalist in the WA Youth Awards,
- winning the under-15 State Schools Orienteering Championships pairs,
- winning the cadets section of the WA Rogaining event,
- the awarding of a Duke of Edinburgh Program State Gold Award (by Prince Edward, Earl of Wessex) to a Unit leader,
- winning an Australia Day award,
- being a finalist in the model solar car challenge,
- receiving acknowledgment letters from community groups and agencies such as Landcare, catchment groups, 'friends of' groups, show and fair organisers, councils and the Water and Rivers Commission, and
- receiving recognition from the school community for CALM Bush Rangers' conservation community service, including graduation night awards.

8

OUR ROLE AS A HOST ORGANISATION

The Department of Conservation and Land Management is a host organisation within the Cadets WA program offering the CALM Bush Rangers program across Western Australia. The Department offers the program to secondary school students by:

- co-ordinating the activities across the State,
- hosting a nationally accredited program,
- successfully trialling a Certificate II in Conservation and Land Management,
- trialling a Certificate II in Leadership,
- providing a system of 'reward experiences' for CALM Bush Rangers including involvement in Western Shield's native animal trapping programs, fire programs, marine conservation projects, programs at Shark Bay World Heritage Area and voyages on the Leeuwin sailing ship,
- encouraging more than 90 Departmental staff to assist Unit management committees and provide hands-on experience and opportunities for CALM Bush Rangers to assist in community service associated with flora, fauna and parks management (staff are acknowledged in the appendix),
- providing work experience opportunities at locations such as Yanchep National Park,
- providing adult participants professional development and guidance, including an annual inservice for instructors from across Western Australia,
- reporting to stakeholders annually with Unit and program reports, and
- acknowledging its participants – both adults and young people – with internal and external awards and experiential rewards.

9

PROFESSIONAL DEVELOPMENT

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

- consolidating the network of instructors across Western Australia,
- the exchange of information about conservation and community service projects,
- gaining information about the function and potential links with the Department, in particular the Marine Branch,
- gaining knowledge and advice on risk management issues, and
- gaining knowledge and skills for team building.

10

CONCLUSION

The CALM Bush Rangers program thanks all participants and partners: the school community, Departmental staff, local community groups and other government agencies at local, State and Federal levels. Our shared goals in conservation, youth development and education have ensured a highly successful program to benefit Western Australia's young people and the environment.

Bronwyn Humphreys
Senior Project Officer CALM Bush Rangers

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Wongutha CAPS CALM Bush Rangers Unit

APPENDIX ONE – CALM STAFF INVOLVED WITH THE CALM BUSH RANGERS PROGRAM

CORPORATE SERVICES DIVISION PEOPLE SERVICES BRANCH RISK MANAGEMENT SECTION Alicia Taylor Corporate Health Officer	
ORGANISATIONAL LEARNING & DEVELOPMENT Alan Byrne Coordinator Organisational Learning & Development Beth McKernan Assistant Training Officer Rose Haggett Clerical Officer	
NATURE CONSERVATION DIVISION MARINE CONSERVATION BRANCH MARINE MANAGEMENT SUPPORT SECTION Tim Grubba Marine Ecologist	
NATURE PROTECTION BRANCH NATURE CONSERVATION COMPLIANCE SECTION KENSINGTON NATURE PROTECTION OPERATIONS Peter Lambert Supervising Wildlife Officer Matt Warnock Regional Wildlife Officer (Herpetofauna) Matt Dowling Regional Wildlife Officer Pauline Southgate Wildlife Officer	
PARKS AND VISITOR SERVICES DIVISION PARK POLICY & SERVICES LAND & EXTERNAL FUNDING UNIT Robert Powell Land-Acquisitions Officer	
VISITOR AND REGIONAL SERVICES STATEWIDE TRACKS & TRAILS UNIT Therese Jones Assistant Trails Coordinator	
INDIGENOUS HERITAGE UNIT Noel Nannup Indigenous Heritage Coordinator Trevor Walley Wildlife Officer (delivers Aboriginal Culture)	
REGIONAL SERVICES DIVISION FIRE MANAGEMENT SERVICES KENSINGTON Ross Mead Senior Fire Training Officer	
FIRE MANAGEMENT SERVICES BUNBURY David Rawet Principal Fire Training Officer Alex Moylett Fire Training Officer	
REGIONAL SERVICES DIVISION GOLDFIELDS REGION Ian Kealley Regional Manager Sarah Adriano Reserves Officer Darren Graham Wildlife Officer Barry Hooper Regional Leader, Parks & Visitors Services Bev Gardiner Project Officer	

MIDWEST REGION	
GERALDTON DISTRICT	
Allana Chant	Operations Officer
KALBARRI NATIONAL PARK	
Mike Paxman	Ranger-in-Charge
Lindsay Baker	NP Ranger
Greg Tapley	Park Maintenance
SHARK BAY DISTRICT	
Carl Beck	Parks & Visitor Services Leader
Marika Maxwell	Officer
Nicole Noakes	Peron Captive Breeding Centre
Robert Thorne	Indigenous Trainee
MONKEY MIA RESERVE	
Sherylee Randall	MMR Officer
Christie Mahony	MMR Officer
Brad Rushforth	MMR Officer
SHARK BAY DISTRICT	
Daniel Cock	Indigenous Trainee
Carolyn Garavanta	Officer
Blair Hardman	Gate Keeper
Ross Nack	Officer
SOUTH COAST REGION	
ALBANY WORK CENTRE	
Martin Lloyd	A/Regional Leader Parks & Visitor Services
Barb Green	Regional Coastal Facilitator
Sylvia Leighton	Land for Wildlife Officer
STIRLING RANGE NATIONAL PARK	
Geoff Harnett	Ranger-in-Charge (Moingup Springs)
Karlene Bain	Ranger (Bluff Knoll)
TORNDIRRUP NATIONAL PARK	
Luke Coney	Ranger-in-Charge
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
CAPE ARID NATIONAL PARK	
Allan Rose	Ranger-in-Charge
CAPE LE GRAND NATIONAL PARK	
Geoff Passmore	Ranger-in-Charge

SOUTH WEST REGION	
BUNBURY	
Peter Henderson	Program Leader Parks & Visitor Services
BLACKWOOD DISTRICT	
LEEWIN NATURALISTE NATIONAL PARK-BORANUP	
Glenn Willmott	Ranger-in-Charge
LEEWIN NATURALISTE NATIONAL PARK-CALGARDUP CAVE	
Ann Wood	Cave Manager
SWAN COASTAL DISTRICT	
Rod Martyn	Senior Nature Conservation Officer
BLACKWOOD DISTRICT	
LEEWIN NATURALISTE NATIONAL PARK-CALGARDUP CAVE	
Tracey Robins	Casual Cave Guide
BLACKWOOD DISTRICT	
LEEWIN NATURALISTE NATIONAL PARK	
Terry Marwick	A/National Park Ranger
BLACKWOOD DISTRICT	
MARGARET RIVER WORK CENTRE	
Graham Winfield	Park Maintenance Worker
SWAN REGION	
SWAN COASTAL DISTRICT	
YANCEP NATIONAL PARK	
John Wheeler	Ranger-in-Charge
Gerald Drummond	Ranger Grounds & Facilities
Paul Tholen	Ranger Nature Conservation
Jason Barrow	Education Coordinator
Nicole Lincoln	Volunteer\Ratis Coordinantor
WANNEROO	
Glyn Hughes	Overseer
FREMANTLE WORK CENTRE	
PENGUIN ISLAND	
Murray Banks	Ranger
PERTH HILLS DISTRICT	
NEW PARKS	
Dale Kickett	Trainee Park Ranger
AVON VALLEY NATIONAL PARK	
Jim Maher	Ranger-in-Charge
WALYUNGA NATIONAL PARK	
Kevin Hill	Ranger
LANE POOLE RESERVE	
Ingrid Hunt	Ranger

WARREN REGION MANJIMUP REGION Ian Wheeler	Recovery Catchment Officer
DONNELLEY DISTRICT MANJIMUP WORK CENTRE Tim Foley Julia Northin	Parks & Visitor Services Officer National Park Ranger
FRANKLAND DISTRICT WALPOLE-NORNALUP NATIONAL PARK Kath White	AI Ranger-in-Charge
WHEATBELT REGION NARROGIN DISTRICT Kate MacGregor Julie Wyland	Reserves Officer Toolibin Recovery Catchment Officer
NARROGIN PLANT NURSERY Sam MacWilliams Merv Beacham	Technical Assistant Overseer
KATANNING DISTRICT Des Plumb	District Wildlife Officer
Science DIVISION HERBARIUM Paul van Heurck Chang Sha Fang	Technical Officer Collections Manager
MANJIMUP RESEARCH Graeme Liddelow Bruce Ward	Senior Technical Officer Senior Technical Officer
STRATEGIC DEVELOPMENT & CORPORATE AFFAIRS DIVISION CYGNET HALL Ron Kawalilak	Director, Strategic Development & Corporate Affairs
eMEDIA SECTION David Gough	Internet and Multimedia Coordinator
GRAPHIC DESIGN UNIT Gooitzen van der Meer	Senior Graphic Designer
KENSINGTON KENSINGTON INFORMATION UNIT Cheryl Tonts	Project Officer, Community Based Programs
EcoEDUCATION SECTION Liz Moore Bronwyn Humphreys	Senior Project Officer, EcoEDUCATION Senior Project Officer, CALM Bush Rangers

APPENDIX 2 INSTRUCTORS CALM BUSH RANGERS 2002

Unit	Instructors
Albany Senior High School	Val Davies, Steve Davies
Chisholm Catholic College	Soo Buckle, Lawrence Venus, Debbie Besh, Terry Healy
Coolgardie Aboriginal Parent Directed School CAPS	Billy Vincent, Darren Moody, Richard Bourne, Rob Walley
City Beach International School	Jenny Yateman, Mark Savage, ShelleySerebrin
Duncraig Senior High School	Jason Schroeder, Trish Gilbert, Nick Devellerez
Ellenbrook Christian College	Steve Fletcher, Penny Backhouse, Darryl Redman
Emmanuel Catholic College	Corrine Moody, Ronnie Cooper
Esperance Senior High School	Andrew Maccan, Julianne Timmers, Stewart Barker, Betty Lewis, Rodney Blennerhasset
Goldfields Baptist College	Greg Coombs, Michel Coombs
Gosnells Senior High School	Lyn Wilkinson, Doug Ridley, Unice Robinson
John Forrest Senior High School	Tanya Cowie, Gerry Fontaine, Maureen Ferguson, Steve Bauer, Colleen Michel
John Septimus Roe Anglican Community School	Carllen Edwards, George Gorgis, Stephen Edwards, Ben Marson, Peter Bowers
Katanning Senior High School	Phil Hogan, Jacky Wheatley, Des Plumb, Natalie Crook
Kalbarri District High School	Craig Addison, Sophie Pisano
Manjimup Senior High School	Graeme Gibson, Darlene Hayward
Mt Lawley Senior High School	Andrew Paul, Ann White, Kerry Lowe, Mia Murphy, Elaine Lennox, Steve Raphael, Terry Doyle
Mullewa District High School	Stephanie Scott, Revis Comeagain
Norseman District High School	Trent Jackaman, Jason Hill
Northam Senior High School	Wendy Nelson, David Taylor, Greg Stokes, Nikki Elton, Margret Hemsley, Dianna Warner
Newton Moore Senior High School	Kevin Lloyd, David Phillips, Shane Mc Kenna, Alla Lloyd
Newman Senior High School	Dave Thompson, Bree Spencer, David Barker, Angie Nybo
Rossmoyne Senior High School	Ann Clemens, Tony Wright, Nellie Petrovich, Sandra Swain, Mark Robinson
Roleystone District High School	Paul Hisman, Glenda Huisman, Debbie Goad
Tardun Christian Brothers Agricultural School	Chris Callus, Mile Barr, Ray Brockwell, Jess Quarrington, Peter Mc Leod, Ursula
Frayne Catholic College	Ann Coppens, Grey Mackay, Matthew Walsh, Luke Mc Lachlan
Warnbro Community College	Kent Chambers, Kevin Watson, Kerry Gardner, David Karcheski, Teresa Parish, Steven Keeling
Waroona District High School	Tom Scotland, Nicole Brown
Wongutha Christian Aboriginal Parent Directed School CAPS	Gary Paul, Wayne Rogan, Harry Graham, Murray Smith, Herbert Howell, Ian Bower, Terry Buckley, Ross Simpson, Julie Rogan, Wayne Harris, Annie Dabb, Helen Edwards, Violet Turvey, Pauline Graham

CALM BUSH RANGERS STATISTICS

CALM Bush Ranger Unit	Number of cadets	Rank	Volunteer hours
Albany Senior High School	14	4 Ranger Recruits 5 Rangers 4 Ranger 1st Class 1 Ranger Section Leader	1,756
Chisholm Catholic College	30	26 Rangers 4 Ranger 1st Class	11,696
Coolgardie Christian Aboriginal parent directed School (CAPS)	35	30 Ranger Recruits 5 Senior Rangers	9,144
City Beach International School	28	10 Ranger Recruits 18 Rangers	1,200
Duncraig Senior High School	48	20 Rangers 8 1st Class Rangers 10 Senior Rangers 7 Rangers Section Leaders 2 Ranger Deputy Leader 1 Ranger Unit Leader	11,104
Ellenbrook Christian College	28	22 Rangers 6 1st Class Rangers	5,732
Emmanuel Catholic College	69	22 Rangers 29 Ranger 1st Class 14 Senior Rangers 4 Section Leaders	16,270
Esperance Senior High School	60	15 Rangers 20 1st Class Rangers 14 Senior Rangers 8 Section Leaders 2 Deputy Unit Leaders 1 Unit Leader	8,114
Goldfields Baptist College	18	18 Rangers	2,400
Gosnells Senior High School	32	13 Rangers 12 1st Class Rangers 6 Senior Rangers/ Section Leaders 1 Unit Leader	6,882
John Forrest Senior High School	94	22 Rangers 32 Senior Rangers 30 Section Leaders 10 unknown rank	3,000

CALM Bush Ranger Unit	Number of cadets	Rank	Volunteer hours
John Septimus Roe Anglican Community School	46	21 Rangers 10 1st Class Rangers 4 Senior Rangers 7 Section Leaders 3 Deputy Unit leaders 1 Unit Leader	6,000
Katanning Senior High School	15	15 Rangers	1,000
Kalbarri District High	17	17 Rangers	4,088
Manjimup Senior High School	16	12 Rangers 2 Ranger 1st class 2 Senior Rangers	4,566
Mt Lawley Senior High School	25	14 Rangers 7 Deputy Section Leaders 4 Section Leaders	6,402
Mullewa District High School	14	14 Ranger Recruits	200
Norseman District High School	8	7 Ranger 1st Class 1 Senior Ranger	1,260
Northam Senior High School	48	25 Rangers 1st Class Ranger 3 Senior Rangers 3 Section Leaders 1 Ranger Unit Leader	11,562
Newton Moore Senior High School	39	20 Rangers 1st Class Ranger 4 Senior Rangers 2 Ranger Section Leaders 1 Ranger Unit Leader	13,392
Newman Senior High School	42	42 Rangers	3,930
Rossmoyne Senior High School	41	7 Ranger Recruits 10 Rangers 9 Ranger 1st Class 7 Senior Rangers 4 Deputy Rangers Section Leaders 4 Ranger Section Leaders 1 Ranger Unit Leader	13,340
Roleystone District High School	28	12 Rangers 1st Class Ranger 14 Senior Rangers 1 Section Leader	1,0983
Tardun Christian Brothers Agricultural school	39	12 Ranger Recruits 12 1st Class Rangers 10 Senior Rangers 4 Section leaders 1 Ranger Unit Leader	12,272

CALM Bush Ranger Unit	Number of cadets	Rank	Volunteer hours
Ursula Frayne Catholic College	17	12 Ranger Recruits 2 Ranger 1st Class 2 Senior Rangers 1 Deputy Ranger Unit Leader	3,000
Warnbro Community School	40	15 Ranger Recruits 20 1st Class Rangers 5 Section Leaders	7,708
Waroona District High School	17	17 Rangers	3,791
Wongutha CAPS	52	3 Ranger Recruits 11 Rangers 4 Senior Rangers 4 Ranger Section Leaders 1 Deputy Ranger Unit Leader 1 Ranger Unit leader	14,649
<p>Ranger Recruits 137 Rangers 419 1st Class Rangers 174 Senior Rangers 132 Ranger Section Leaders 76 Deputy Ranger Unit Leader 20 Ranger Unit Leader 9 Total: 967 Total hours: 200,000</p>			



Photos by Bronwyn Humphreys, Soo Buckle and Mark Robinson.