



# Endangered black cockatoos lost to storms ahead of population count

**DEC OFFICERS, Perth Zoo veterinary staff and volunteer wildlife rehabilitators have been working together to treat endangered Carnaby's black cockatoos injured during the storms that ravaged Perth and surrounds on Monday 22 March.**

Twenty-three endangered black cockatoos were handed in to Perth Zoo carrying fractures as well as soft tissue and skeletal injuries.

Four of the birds had to be euthanased and another 37 were found dead in Kings Park and surrounding suburbs.

DEC Senior Investigator Rick Dawson said most of the surviving birds were being cared for at the Black Cockatoo Recovery Centre in Perth's southern suburbs.

"We hope to release some of the birds as soon as possible while those still showing signs of injury will be released in the coming weeks and months," he said.

"At this stage we're looking to release them into Kings Park, as most of the birds would be familiar with the park, which is

one of the last large remaining remnants of vegetation close to the city."

Rick said Carnaby's black cockatoos were endemic to south-west Australia and it was estimated that only 40,000 exist with the population spread over only one-third of the range that existed 50 years ago.

"The storm highlighted how important it is to find out more about the cockatoo's distribution," he said.

"So, DEC and Birds Australia, with the help of the local community, are going ahead with plans to continue its ongoing monitoring of the Carnaby's black cockatoos that use the Swan Coastal Plain with the Great Cocky Count, a nocturnal roost survey, on 7 April."

The survey aims to determine the population of this threatened species in the Greater Perth region from Moore River in the north, east to York and south to Yalgorup. The survey will help determine whether the population has declined or increased since the last survey in 2006.

Last time more than 1,000 volunteers found there were at least 4,000 birds of this species on the Swan Coastal Plain at that time.

Rick said the storms had a significant impact on wildlife around Perth.

"However, we have heard some good-news stories about birds that were rescued from the hail and then being successfully released the following day."

If you can help count birds at your local

roost, or simply provide information on where a black cockatoo roost site is, please contact DEC Regional Ecologist Geoff Barrett on 9423 2907, or email [geoff.barrett@dec.wa.gov.au](mailto:geoff.barrett@dec.wa.gov.au) or Quinton Burnham from Birds Australia on 042 876 2292, [q.burnham@ecu.edu.au](mailto:q.burnham@ecu.edu.au).

**"We've also had reports of pelicans, swans, ducks, willie wagtails, egrets, seagulls, shags, crows and magpies being injured or killed."**



*DEC Senior Investigator Rick Dawson with Black Cockatoo Recovery Centre Manager Andrea Dewhurst in the rehabilitation enclosure where the injured black cockatoos are being housed.*

# Improving radio communications in the Kimberley Region

**SEVEN new very high frequency (VHF) repeater sites have been installed into the far reaches of the Kimberley Region, providing secure radio communications for DEC and tourists in the area.**

The new radio sites are spread out in the Purnululu and Mitchell River national parks and the King Leopold Ranges Conservation Park, providing these regional areas with VHF highband radio for DEC-use and ultra high frequency circuit breaker (UHF CB) for tourists and tour groups in the area.

The new radio networks also include satellite interconnectivity so they can be accessed from any land-line, mobile or satellite phone.

DEC Radio Section Manager Glen Bradbury said that the sensitive nature of the Kimberley sites meant staff had to design new infrastructure and equipment for the broadcasting stations.

"Usually the infrastructure used to support repeater towers is quite large, up to 54 metres high, however, the areas in the Kimberley took in important Aboriginal sites where the land could not be disturbed," Glen said.

East Kimberley District Senior Ranger Lindsay Brown, traditional land owners of the area and Radio Section staff came together to design new, cyclone proof, smaller units capable of being transported by helicopter.

"As the culturally sensitive areas were inaccessible by foot, the equipment shelters used at the Bungle Bungles had to be airlifted into position," Glen said.

"Where before there was no radio contact, DEC rangers, tour guides, tourists and local communities now have access to radio communications.

"This will improve communications between DEC staff, visitors to the parks and emergency services."

This infrastructure was funded through the Australian Government's Clever Network Program with support from the Department of Commerce.

## **DECcreasing operational costs with recycled materials**

**IN keeping with the ethos of the DECcrease project, Parks and Visitor Services (PVS) staff are choosing recycled plastic products and reusing old timber in their operations at various locations across the State.**

Purchasing recycled plastic products instead of traditional timber bollards, boardwalk planks, signage and bridges provides a more sustainable choice in many situations. They require less staff to install, have little to no long-term maintenance requirements, do not corrode or rot and are resistant to termites.

At Cape Le Grand National Park near Esperance, Senior Ranger Peter Masters recently constructed a recycled plastic swale bridge on the coastal walk trail between Hellfire Bay and Little Hellfire Bay. He chose the materials due to their ease of handling and corrosion resistance.

"While the materials may cost more up front than timber, they last a lot longer, take only two to three hours to assemble instead of a couple of days and are much lighter to carry into the site, requiring less staff," Peter explained.

PVS Midwest Regional Leader Sue Hancock is a keen advocate for the use of recycled plastic products and has seen the materials used extensively throughout the region. The products are an attractive, long-lasting substitute for timber and can be used for boardwalk decking, seat tops, totem signage and handrail supports.

"They come in a range of colours that blend in well with the natural surroundings. The quality is excellent and visitor feedback about the product has been extremely positive too," Sue said.

Similarly, Shark Bay District PVS Coordinator Tricia Sprigg is using more sustainable options for their operations.

"We're always looking for the most environmentally friendly option in our operations and phasing out the use of treated pine," Tricia said.

"Where possible, we also reuse old timber products in new ways and look to purchase materials that are made of recycled content."

Another example of the region's sustainability focus in practice can be seen at the Natural Bridge Shelter in Kalbarri National Park. At this site, recycled plastic has been used for decking, old fence posts from ex-pastoral lease Pimbee Station

used for wind screening and reused jarrah planks from an old boardwalk in Shark Bay have resulted in a construction that perfectly suits its surrounds.

The use of recycled plastic bollards has been proven to be successful in parks in the Perth Hills District. PVS Coordinator Jamie Ridley explained that in his experience, recycled plastic is better suited for particular uses.

"While we've found that the furniture tends to get quite warm in direct sunlight, the plastic bollards are excellent and we've used them a lot at places such as Lane-Poole Reserve, Fred Jacoby Park and Walyunga National Park," Jamie said.

DECcrease Senior Project Coordinator James Milne said it was encouraging to see so many staff across the agency were being proactive and looking to achieve sustainable outcomes from their work.

"Reusing old materials and purchasing products made from recycled content diverts a lot of waste from landfill," James said.

"In addition to the obvious environmental benefits, staff are using materials that in some cases is free or will result in significant long-term financial savings for the agency."



*Shark Bay District PVS Coordinator Tricia Sprigg enjoys the view from the Eagle Bluff boardwalk in Shark Bay World Heritage Area. The deck, stanchions and seat top are all recycled plastic.*



# Six-seasons garden at Culunga school

**STAFF from DEC's Aboriginal Heritage Unit (AHU) are helping bring new learning opportunities to students at Culunga Aboriginal Community School in West Swan.**

Culunga is an independent Aboriginal school with 68 students, managed by the Culunga Aboriginal Community Corporation. It is located on land that has been identified as an ancient Nyoongar camping ground.

As part of the school's current program of facility upgrades, DEC's AHU is helping design and plant a 'six-season garden', based on the six seasons of the Nyoongar calendar.

AHU Cultural and Community Coordinator Koodah Cornwall said the aim of the school was to enable Aboriginal people to produce a positive cultural environment for learning.

"By providing a strong social, cultural and educational environment in which Aboriginal people significantly direct the school and act as role models, it is hoped students will be encouraged to further their education and take up a range of career opportunities that a good education offers," Koodah said.

The six-season garden has been developed as part of a 'learning circle' at the front of the school—a space in which students can learn about their culture.

Culunga Principal Darryl Eades said the learning circle would be an educational tool for Culunga students, their teachers, students from other schools and for the wider community.

"It will be a safe space for learning and where we can invite elders to talk," Darryl said.

"We will involve our students right from the start of the process so they have a sense of ownership and pride in the

learning circle and garden."

The AHU's involvement with developing the garden fits in with its aim to build relationships with the Aboriginal community, as well as the role of heritage officers Thomas Dimer and Bel Cox to provide education and awareness programs.

The garden was designed by Thomas and work has recently begun, being carried out by a Green Corps team as well as the

school's students, parents and community.

"The AHU will be available to help with the work, give advice about design and appropriate plants and liaise with the students and Green Corps team, providing them with positive role models," Koodah said.

"We also hope the project will provide the chance for the young people working in the Green Corps team to see some of the work Aboriginal people do with DEC and the opportunities that exist for their

own learning and careers, such as through DEC's Mentored Aboriginal Training and Employment Scheme."

The learning circle and six-season garden project is one of several being achieved through the efforts of a working group including Culunga staff, the Aboriginal Alcohol and Drug Service and not-for-profit Aboriginal community support service Peedac. Other projects include a cultural bush trail and a vegetable garden.



AHU Cultural and Community Coordinator Koodah Cornwall (back row, fifth from right), Aboriginal Heritage Officer Thomas Dimer (back row, second from left), Danny Penny from the Aboriginal Alcohol and Drug Service (back row, fourth from right) and Culunga Principal Darryl Eades (back row, second from right) with the Green Corps team who are helping build the six-season garden at Culunga school.

# DEC site hosts Australian first for decontamination

**AUSTRALIA'S first double-trench permeable reactive barrier (PRB) is being installed at Bellevue to prevent contaminated groundwater entering the Helena River.**

Environment Minister Donna Faragher announced the start of the remediation project at the former Waste Control site — a liquid waste treatment and recycling facility that was destroyed by fire in February 2001.

The site, now managed by DEC on behalf of the State, is contaminated with petroleum hydrocarbons and chlorinated solvents which can be attributed to both historical site operations and the fire.

Mrs Faragher said there were about 200 PRBs in operation around the world but the one planned for Bellevue, consisting of two parallel trenches, was believed to be the first of its kind in Australia.

At 11 metres deep and 76 metres long, the trenches will be built over the next two

months and filled with treatment materials including sawdust and sand in one to treat nitrates and an iron and sand mix in the other to treat chlorinated solvents.

The PRB works by breaking down contaminants and rendering them harmless as the groundwater flows through the treatment materials.

The work is being carried out by specialist geotechnical and civil engineering contractor Menard Bachy and the project will be managed by LandCorp.

Mrs Faragher said the \$3 million project was a major milestone in the remediation process for the Bellevue site.

"As a result of the detailed investigation of the site and increased understanding of groundwater movement in the area, the State Government is confident the PRB will be effective in protecting the Helena River," she said.

"Once installed, the PRB will not be visible nor cause any disruption to the local community because it operates passively, does not produce any emissions and requires no maintenance.

"It has been designed to last at least 15 years and monitoring of the groundwater and the Helena River will be carried out during this period to evaluate the PRB's performance," she said.

Contaminated Sites Branch Manager Kerry Laszig said extensive investigations at the site had discovered a second, off-site plume unrelated to the 2001 fire.

"Had we installed a barrier earlier, we'd have put it much closer to the Waste Control site and failed to treat this second plume which is moving towards the Helena River," Kerry said.

A separate strategy is being developed to clean up soil and groundwater contamination at the Bellevue site. It is expected to be finalised later this year after community consultation.



*Dr Janet Macmillan and Kerry Laszig (Contaminated Sites Branch) with Environment Minister Donna Faragher (centre).*

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## An Evening with Richard Louv

**A FREE talk on the interaction of children and families with the environment will be held at Perth Concert Hall on 21 April from 7pm–9pm.**

Sponsored by the Department of Sport and Recreation and presented by the internationally acclaimed author of *Last Child in the Woods: Saving our children from Nature-Deficit Disorder*, An Evening with Richard Louv will stimulate conversation about the future relationship between children and nature in the community.

For more information about Nature-Deficit Disorder and Richard Louv go to [www.dsr.wa.gov.au](http://www.dsr.wa.gov.au) and search for Richard Louv.

Book your tickets online at [www.dsr.wa.gov.au/an-evening-with-richard-louv](http://www.dsr.wa.gov.au/an-evening-with-richard-louv) or call 9492 9700 and mention the Richard Louv talk.



# Nature the perfect classroom for *EcoEducation*

**TEACHERS from regional and metropolitan primary and secondary schools recently attended the first *EcoEducation* Aboriginal Professional Learning Day at the Perth Hills National Parks Centre.**

*EcoEducation* programs for teachers are run several times a year covering a wide range of nature-based learning activities that are linked to curriculum learning areas, with each program combining professional learning for educators, classroom resources and excursions across a number of venues.

*EcoEducation* Team Leader Stephen Crane said that the aim of the Aboriginal Professional Learning Day for educators was to break down barriers and enable teachers to prepare students for experiencing Aboriginal culture first hand.

"What we provide is a smorgasbord of Aboriginal culture as an introduction for

students. We also integrate language, science and a wide range of subjects," he said.

"Ultimately, the aim is to raise awareness of Aboriginal culture throughout as many schools as possible simply by teachers taking back knowledge to the classroom. Of course the more schools who return to visit for themselves the better."

Experienced DEC Aboriginal leaders Leonard Thorne and Trevor Walley guided the teachers through a silent bush walk where they explored the use of natural and renewable resources and traditional conservation techniques.

Tool and artefact-making sessions included scientific principles to develop an understanding of natural and processed materials, followed by fishing and traditional sharing circle and fire stick ceremonies.

*EcoEducation* Senior Project Officer

Elaine Horne said that both teachers and students benefit from the practical aspects of the learning day.

"Everyone who attends our learning days is engaged in doing things themselves and learning different techniques the Aboriginal way, utilising traditional materials," she said.

Ernesto Ayala attended the learning day on behalf of Mercy College and described the experience as a perfect fit for his school's curriculum.

"This program was very hands on, which is what you look for in an excursion. I will definitely introduce aspects of the day into my classroom," he said.

Trevor, or 'Mr T' as he prefers to be known on site, is an elected Nyoongar spokesperson for the metropolitan area by the South West Aboriginal Land and Sea Council and has been with DEC for 30 years.

Trevor encourages teachers, students,

DEC staff and just about anyone to experience the Aboriginal programs presented at the Perth Hills National Parks Centre.

"I can't really describe the experience in words, all I can say is to come along and experience it for yourself," he said.

Fellow DEC Program Officer Anthea Dempster-East is currently in training to become an *EcoEducation* leader and is enjoying the opportunity that the program has provided her.

"I have loved the whole experience of my training so far. It's great to work within this type of environment every day and I look forward to providing our visitors with a woman's perspective on food gathering and tool making," she said.

To find out more about Aboriginal or any other *EcoEducation* programs offered, contact Lisa Ingram on 9295 6149 or email [Lisa.Ingram@dec.wa.gov.au](mailto:Lisa.Ingram@dec.wa.gov.au).

## Upgrades protect values at Port Kennedy Scientific Park

**PEDESTRIAN access has been improved and Ramsar-listed wetlands better protected from unauthorised vehicle damage through a new project at Port Kennedy Scientific Park.**

Port Kennedy Scientific Park, about an hours' drive south of the Perth CDB between Port Kennedy and Secret Harbour, is 711 hectares in size. It is managed by DEC's Regional Parks Branch.

DEC Operations Officer Tim Fisher said the works had reduced the problem of off-road vehicles illegally driving through the park, damaging vegetation and sensitive fore-dunes.

"We have obstructed illegal access with large limestone boulders along Port Kennedy Drive and installed heavy-duty boom gates at the management access points," he said.

"Specially designed fencing is also being installed to

help prevent four-wheel-drive vehicles and trail bikes accessing the park and this will also make it safer for people walking and enjoying nature."

A significant feature of Port Kennedy Scientific Park is the Ramsar-listed Becher Point wetlands which are unique in their age and formation.

This area is one of the youngest formations on the Swan Coastal Plain and is probably the best example of a consistently developed Holocene beach ridge complex in the world.

The wetlands that form in the Becher Point dune swales also support groups of plants that are listed as threatened ecological communities.

Tim said a new path and entry gate at Port Kennedy Scientific Park improved access for pedestrians and new information signs would help visitors appreciate the park's geomorphological values.

"Some orange wattle has also been removed from the entrance to improve views of the park, enabling local residents to see this fascinating landscape," he said.

"It is hoped that this will improve passive surveillance by passing traffic and nearby residents, discouraging damage to both park infrastructure and vegetation."

Tim said the entrance would be landscaped with native species grown from seeds collected locally and that a community planting day would be held at the park in June.

"We would love to see more members of the community become part of the park's support system, and to enjoy the benefits of connecting with nature," he said.

To find out more about volunteering at Port Kennedy Scientific Park contact DEC's Regional Parks Branch on 9431 6500.

