



Operation Climate Change goes live

ENVIRONMENT Minister Donna Faragher has launched an innovative new online resource, Operation Climate Change, designed to teach students about climate change and how to live sustainably.

Operation Climate Change was developed by DEC's Community Education Branch to help Year 5 to Year 10 students understand the science behind global warming and its potential impact on the environment and human populations. The program also addresses the relationship between climate change and important environmental and conservation issues including biodiversity conservation, energy and water conservation, air pollution, resource consumption and waste management.

Manager of Community Education Greg Allen said that Operation Climate Change had been created as an online game to make learning about climate change as interesting and as much fun as possible.

"Students complete a number of missions and according to their score collect and tally green balloons by selecting CO² friendly behaviours, appliances and services for their virtual home," Greg said.

"Their ultimate goal is to accumulate as many green balloons as possible and 'live' in a virtual home with a low CO² footprint".

As Operation Climate Change is online, students can complete missions at anytime



Environment Minister Donna Faragher with students from Woolupine Primary School.

and anywhere that they have access to a computer and the internet.

Additional missions are fun and interactive such as 'Mission Toys! Toys! Toys!' which is about making toys from recycled materials and learning about toys children have in other countries, and 'Cooking Without Gas'

which is especially good for kids who like experiments as they learn to build a solar oven.

Each mission is directly linked to the Department of Education's Curriculum Framework and is scoped and sequenced to relevant subject areas. Comprehensive

teacher and student notes are also provided. Students complete pre- and post-mission testing with the results available for student assessment.

As research has shown that parent behaviour is directly influenced by their children, setting Operation Climate Change as homework encourages students to discuss climate change and environmental and conservation issues at home.

Operation Climate Change is also a valuable teaching tool for students who do not attend 'normal' schools, particularly for home-schooling and School of the Air.

The new program is a culmination of nearly two years work by a small team of dedicated educators and graphic designers. Greg said that he was indebted to the team consisting of Dr Jennifer Pearson of Edith Cowan University, PhD candidate at Murdoch University Elaine Lewis, PEAC teacher Steve Watts of Thornlie Primary School, Sam Cross of Flaming Cow Design, and Beverley Stevens from Community Education Branch for their outstanding research and development work.

Greg also thanked the Office of Climate Change for providing the funding for the new program.

Operation Climate Change is free and available to all schools and teaching institutions in Western Australia and can be accessed at www.operationclimatechange.com.au.

Gilbert's potoroo thriving on Bald Island

DEC's latest monitoring trip to Bald Island off the state's south coast has revealed a thriving population of the critically endangered Gilbert's potoroos.

Gilbert's potoroo—the world's rarest marsupial—has been the subject of a recovery program since the discovery of the only known wild population of about 40 animals at Two Peoples Bay Nature Reserve near Albany in 1994.

Between 2005 and 2007, DEC translocated 10 potoroos from the original colony at Two Peoples Bay to predator-free Bald Island, as insurance against the loss of the tiny mainland population.

Earlier this year, nine potoroos were released into a specially built 380 hectare enclosure in Waychinicup National Park, 25 kilometres east of Albany, with six of the animals coming from Bald Island and three from Two Peoples Bay.

DEC principal research scientist Dr Tony Friend said efforts to boost the two tiny translocated populations of Gilbert's potoroos were proving successful, following the latest monitoring results.

"During the two-week trip to Bald Island, we captured 49 adult or young independent potoroos, nine of which were original founder animals, which is a big increase over the

previous record in November last year, when 29 independent potoroos were captured," Tony said.

"The condition of the animals was good and 12 of the 19 females captured were carrying pouch young, while three others were suckling young out of the pouch."

Tony said a survey in mid-May revealed eight of the nine animals introduced into the predator-proof fenced enclosure at Waychinicup National Park had survived.

"Unfortunately, we lost one young male, which had been rescued at Two Peoples Bay and hand-reared after becoming separated from his mother, as he apparently had trouble finding food," he said.

"One of the recaptured Bald Island females at Waychinicup had a young animal in its pouch, which would have been conceived in the fenced enclosure, and this is an extremely positive sign that the animals are adapting well to their new environment.

"Over the next few weeks we will be trapping extensively inside the enclosure to locate the potoroos and record the vegetation types they have settled in, to help us gain a better idea of the range of habitat types that Gilbert's potoroos can live in and help us select future release areas on the mainland."



Funding awarded for waste projects

THE successful grant recipients from round one of the Waste Authority's two grant programs have recently been announced by Environment Minister Donna Faragher.

Nine organisations were awarded funding through the Strategic Waste Initiative Scheme (SWIS) to support a range of waste management projects from food waste collection to sustainable painting and recycling hardwood timber.

Seven community organisations were awarded funding through the Community Grant Scheme (CGS) to support projects including the development of a community garden, glass crushing, renovation using sustainable recycling techniques and building a community organic waste station. The projects showed a diversity of innovative approaches to waste management.

Since 2004, the Waste Authority has funded a wide range

of projects that aim to reduce the amount of waste entering the waste stream.

Projects have been funded to communicate the "Avoid-Recover-Disposal" message, support research into the use of demolition waste and even purchase equipment to assist organisations in collecting certain types of waste.

The funding stream is split into two. Community organisations can apply for funding of up to \$20,000 in CGS, and there is an open limit for SWIS which is targeted at major projects. Both schemes have two rounds per year and to date approximately \$5.4 million has been distributed.

Each round highlights some priority areas related to the waste strategy and government goals and currently the SWIS priority areas include commercial and industrial waste recovery and recycling, construction and demolition waste recovery and recycling and e-waste.

Members of the authority work with DEC Waste Management Branch staff to select winning grants and then the process of managing contracts and outcomes is handled by Tony Beeson and Bianca King.

As first point of contact Bianca enjoys the interaction with grant applicants.

"The best part of the job is informing applicants of the success of their application and seeing them reach their milestones", she said.

Tony Beeson oversees the grants process and, together with the selection committee of the Waste Authority, ensures that projects remain on track and deliver agreed outcomes.

The second round for the year has just opened and applicants have until 10 September to apply.

For more information visit the Waste Authority's website at www.zerowaste.com.au.



Training launches new surface water management tools

SUSTAINABLE Forest Management Division's Forest Policy and Practices Branch recently ran a series of surface water management training sessions to launch a new series of tools and guidance documents.

Four two-day courses were run: of two courses for field officers and two courses for machine operators. Fifty-four participants were involved across a range of applied land management service areas including Parks and Visitor Services, Fire Management Services, Sustainable Forest Management, the Forest Products Commission and various contractors. The courses were run at Pemberton, Kirup and Dwellingup.

Forest Policy and Practices Branch Manager Bob Hagan said senior land management officer Tony Smith developed the courses to introduce a range of structures and tools to assist in the management of erosion and turbidity associated with roads, tracks, burn boundaries and timber harvesting extraction tracks.

"The machine operator courses were primarily a hands-on affair featuring the planning and construction of trafficable spreaders and rolling dips—used to divert water off a track—using either a bulldozer or tracked bobcat," he said.

"A good deal of information-sharing

occurred between participants and SFM Division received valuable feedback on the practical challenges and issues encountered by machine operators in their daily work."

The field officer courses involved the use of a spreadsheet on the tools for the management of surface water to estimate peak flow for a range of catchment types and rainfall events. This was followed by field sessions looking at a range of design, construction and maintenance issues associated with various forms of surface water management structures on DEC-managed land. The field sessions included looking at road types, erosion

issues, culverts, mitre drains, bridges and burn boundaries.

The training was conducted by Martyn Keen and Tilwin Westrup from the Department of Agriculture and Food and will lead to many participants gaining Certificate III level qualifications in erosion and sediment control.

A range of tools and guidance documents for the management of surface water developed by Martyn with DEC can be found on the SFM Division intranet page. For more information, contact Tony Smith at DEC's Bunbury office on (08) 9725 5919 or email tony.smith@dec.wa.gov.au.

Goat control on Burnerbinmah

THE completion of a project to prevent grazing by feral goats on Burnerbinmah in the Midwest will provide native plants and animals a better chance to recover.

A DEC survey completed in mid-June 2010 has shown that the goat population on the former pastoral station has dropped 40 per cent. Burnerbinmah was purchased by DEC for conservation purposes in 1995 and is 80 kilometres south-west of Mt Magnet.

The control methods include the construction of a 140-kilometre-long goat-proof fence.

Senior Pastoral Officer David Blood said the goat control program at Burnerbinmah was aimed at improving the condition of the landscape, re-establishing water sources for native species and restoring biodiversity.

"Goats breed prolifically and, if left to their own devices, they will overgraze the preferred parts of the landscape and cause major damage, preventing the regeneration of native plants and competing with native animals for food and habitat," he said.

David said the 140-kilometre goat-proof boundary fence

had been constructed in stages since 2002 to keep goats out of the 59,900 hectare property and encourage natural regeneration of the bush that had been grazed by goats for many years.

"The final stage of the fence was completed in July 2009, and that was followed by an aerial survey in September 2009 to determine the number of goats remaining inside the fence," David said.

"During the initial 2009 survey, the feral goat population on Burnerbinmah was estimated at 800 goats."

DEC arranged a goat musterer to remove more than 500 goats from Burnerbinmah in October and December 2009, and the DEC-funded caretaker of the property had culled an additional 100 goats and was continuing culling on the property.

"A follow-up survey in mid-June 2010 indicated that the population of feral goats was at 300 animals, less than 40 per cent of the initial population estimate," David said.

"While we have seen and measured a real reduction in goat numbers on Burnerbinmah, it's very important to maintain the control program and prevent the goat



Conservation employee Craig Tuesley takes a break after helping to complete another stage of the goat-proof boundary fence.

population from recovering.

"We are planning to build a permanent trap yard on the property's largest freshwater springs, and an ongoing culling program will continue until we are confident there are no goats left on the property."



Tagged cockatoo provides valuable insight

A FOREST red-tailed black cockatoo that was severely injured when it was hit by a car in Lynwood earlier this year and recently released back into the wild has provided a valuable insight into the fascinating behaviour of the species.

Department of Environment and Conservation (DEC) senior wildlife officer Rick Dawson said the bird was released into the wild in bushland in Bedfordale after undergoing several weeks of intensive rehabilitation.

"A member of the public found the injured cockatoo, which had suffered serious head trauma as a result of the accident, and reported it to DEC after noticing that it had a silver and orange tag around each of its legs," Mr Dawson said.

"These colour-coded bands were put on the cockatoo by researchers at the Western Australian Museum when it was just a chick, to help scientists establish the bird's movements throughout Perth."

Mr Dawson said it was due to the tagging system that wildlife offers were quickly able to determine where the cockatoo had come from.

"About 2000 cockatoos have been tagged over the years and registered with the Australian Bird and Bat Banding Scheme, which enabled us to quickly establish that this

particular cockatoo was born and tagged by the WA Museum at Bungendore Park in the Perth Hills in 2002," he said.

"The fact that it was observed in the metropolitan area was a significant discovery as it confirmed previous theories which suggested that these birds moved beyond their immediate feeding and breeding grounds to other areas.

"We are now learning that black cockatoo individuals can venture across the entire Swan Coastal Plain, which is further than previously thought, and the tagging information is providing a clearer picture of their distribution and behavioural patterns."

DEC plans to tag a further 150 black cockatoos this year.

While being rehabilitated, the injured female cockatoo was taken into the care of the Perth Zoo and the Black Cockatoo Recovery Centre.

Mr Dawson said staff at both these centres had done a fantastic job in ensuring the cockatoo had a full recovery.

Forest red-tailed black cockatoos are a protected species and they are listed on the state's Threatened Fauna List.

Anyone who sees a black cockatoo with bands around its legs is asked to note its location and if possible record any of the numbers on the band and contact DEC's Wildcare helpline on 9474 9055.



Ron Johnstone and Rick Dawson releasing birds back into the wild. Photo Tony Kirkby

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