



Principal Research Scientist Tony Friend with a Gilbert's potoroo.

## New colony of Gilbert's potoroo

**SEVEN Gilbert's potoroos were released on Friday 12 March into a fenced reserve in a remote part of Waychinicup National Park, on Western Australia's south coast.**

Principal Research Scientist Tony Friend said fewer than 100 potoroos were known to exist and were found at only two locations – the Two Peoples Bay Nature Reserve and Bald Island, both near Albany.

“The aim of this project is to set up a second mainland population and to begin a wider re-introduction of the species—the world's rarest marsupial—into its former mainland habitats,” he said.

“We will be radio-tracking the potoroos to monitor their progress and to learn about their use of different vegetation types within the enclosure.

“This will help in future work to establish new populations of the species.”

The animals, aged between two and six years, were released into a 380-hectare enclosure, surrounded by eight kilometres of two-metre high fence that will protect the potoroos from foxes and cats.

The enclosure has been built in long-unburnt

vegetation including some dense heathland, almost identical to the potoroo habitat at Two Peoples Bay Nature Reserve. In the long term, release outside the fence will enable colonisation of other suitable areas.

Four of the potoroos, two male and two female, are from Bald Island, while two males and one female are from Two Peoples Bay. A male and female potoroo were released as pioneers two weeks ago.

Before 2005, Two Peoples Bay was the only known Gilbert's potoroo colony. Between 2005 and 2007, the Department of Environment and Conservation (DEC) translocated 10 potoroos to predator-free Bald Island.

Recent surveys at Bald Island have revealed an increased population of about 30 potoroos and the successful establishment of the new breeding colony.

The \$120,000 project to establish a third population of Gilbert's potoroos at the Waychinicup National Park enclosure is funded by the State Government's Natural Resource Management Program and DEC's priority threatened species project funding.

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# Supreme Court judgment on smoke and wine grapes

**A SUPREME Court decision earlier this month dismissed court action against DEC for negligently carrying out a prescribed burn that resulted in smoke taint of wine grapes.**

Justice Graeme Murphy handed down his decision on Friday 12 March on the case which was heard in September last year.

The action was brought by Southern Properties (WA) Pty Ltd and others against DEC and the State of Western Australia alleging that DEC negligently performed its prescribed burning program next to the plaintiffs' vineyards in the 2004 autumn burning season, causing smoke damage to wine grapes.

Justice Murphy found that a duty of care, as alleged by the plaintiffs, did not exist. If such a duty did exist, he found that it was not breached. He dismissed the plaintiffs' action.

DEC Director General Keiran McNamara said it was the first time a court had considered whether a duty of care existed in relation to prescribed burning activities conducted by a public authority with fire management and biodiversity conservation functions and responsibilities.

Justice Murphy concluded it would be unreasonable to impose a duty of care to avoid smoke damage to wine grapes on a public authority with fire management and biodiversity conservation functions and responsibilities in circumstances

where it was not possible to avoid some smoke during veraison (a critical period in the development of wine grapes).

Keiran said the issue of smoke and wine grapes continued to present significant difficulties for all stakeholders despite advancements in smoke and wine grape research.

"DEC will continue to work with stakeholders to find the best possible long-term solution. DEC will continue to consult with the grape and wine production industry on burn programs and research projects, and will take into account the concerns of individual growers," he said.

Following an information sharing forum held by DEC on 27 January this year and attended by a range of stakeholders, the Wine Industry Association of Western Australia and DEC met and agreed that:

- growers will provide DEC with forward projections and weekly updates of how vintage is progressing and the likely finish to harvest of reds, whites and major varieties in each region
- DEC will use vintage information to fine-tune the scheduling of prescribed burns in regions where such burns might impact on grape growers
- DEC will advise the wine industry of burns considered high priority and essential for the upcoming burning season to allow growers to make more informed vineyard production

decisions for that period.

"DEC will take all reasonable and practical precautions and measures to avoid smoke affecting vignerons but DEC can give no guarantees that smoke from prescribed burns may not have some impact upon vineyards from time to time," Keiran said.

"In making daily decisions on prescribed burning, DEC's fire managers will continue to take into account the potential for smoke to blow over individual vineyards that are adjoining or close to planned burns on DEC-managed lands.

"DEC may also consider deferring some burns in late autumn to allow grape harvesting to be completed where the Department is confident that another opportunity to achieve the burn following grape harvest will occur in that season."

The department also is collaborating with the Department of Agriculture and Food and Curtin University of Technology on research into smoke effects to grapevines and taint in wine.

"I wish to acknowledge the professionalism of the State Solicitor's Office legal team in their successful defense of this action, and thank the many DEC staff involved for their dedication and commitment over the past six years in dealing with this case," Keiran said.

The full judgment is on the Supreme Court's website at [www.supremecourt.wa.gov.au](http://www.supremecourt.wa.gov.au).

## Business Clean Up Day

**DEC staff collected 200 bags of litter during the Business Clean Up Day conducted earlier this month.**

Teams from DEC workplaces across the State covered areas such as the eight-kilometre stretch of the South Western Highway from Manjimup to Palgarup, Cape Peron, Gracetown, Matilda Bay Reserve and Pelican Point Conservation Area, Alfred Cove and Milyu Nature Reserves, Walpole and Nornalup Inlets Marine Park, Kalgoorlie Arboretum, St John's Conservation Park and Valentines Springs, Middles Springs and Black Rock Falls in Ngamooowalem – a new Kimberly reserve.

Staff collected an array of items including a \$10 note, a marron trap, metal ramp and various items of clothing.

South Coast Regional Leader Parks and Visitor Services Tim Foley was pleased with the reaction from both staff and the public to the clean up.

"Staff were more than happy to take part in this initiative and, judging by the number of horns tooted on the South Western Highway, it also sent a good message to the wider community," Tim said.

Marine Conservation Officer Matt Fossey found that cigarette butts were still one of the main culprits littering the Cape Peron precinct.

"While we picked up some cigarette butts we decided to focus our efforts on the larger, more visible items of rubbish, otherwise we might not have moved beyond the car park," he said.

Community Education Officer Maureen Maher was impressed with the amount of rubbish DEC staff collected.

"It was a great effort all around and it was really good to see so many DEC staff prepared to roll up their sleeves and get involved.

"About 160 staff and community members collecting 200 bags in total is a lot of rubbish!" Maureen said.

The Keep Australia Beautiful Adopt-a-Spot program is for any DEC groups wishing to clean up on a regular basis. They can register to adopt a site at [www.kabc.wa.gov.au](http://www.kabc.wa.gov.au).

"Adopt-a-Spot makes for a great team building exercise, provides us with a break from the computer and is good for the environment and for physical and mental health as well," Maureen added.

DEC Senior Project Officer James Milne said that Business Clean Up Day fitted in to the ethos of the *DEC* project.

"You can clearly see through a big increase in participation this year that many staff in this agency are keen to do that little bit extra to help the environment in a way that may be outside the scope of their normal duties."



# Loggerhead turtles given a fighting chance

**DEC staff, together with the Rockingham Environment Centre and Ocean Park Shark Bay, have successfully carried out the relocation and release of five loggerhead turtles at Steep Point, Shark Bay.**

Turtle Bay, on Dirk Hartog Island, is the largest known loggerhead turtle nesting site in Australia. Turtle hatchlings from this area and other breeding sites further north are often caught up in the Leeuwin current which flows south along the WA coast carrying the turtles to beaches from Geraldton to as far south as Albany.

The Naragebup Rockingham Regional Environment Centre acts as a receiving and rehabilitating point for these juvenile sea turtles that are found on southern beaches during the winter months.

Marine Park Coordinator Dave Holley said DEC's Nature Protection Branch, the Naragebup Rockingham Regional Environment Centre and Ocean Park played vital roles in ensuring that the young turtles were fit enough for the journey back north and for their subsequent release.



*Anna Janzen from Ocean Park releasing a Loggerhead Turtle at Steep Point.*

"Naragebup Rockingham Regional Environment Centre has a purpose-built sea water facility for holding hatchlings that have drifted south. Months later and depending on their condition, the juvenile turtles are transported back to Shark Bay where DEC marine officers and Ocean Park Shark Bay staff settle them and assess their condition before releasing them into the waters off Shark Bay," Dave said.

Shark Bay District Clerical Officer Lyn Harding accompanied the most recently released loggerhead turtles on their journey.

"My team met with Regional Wildlife Officer Cameron Craigie in Armadale, where the turtles were fed and readied for transportation. We stayed the night in Geraldton and regularly replenished the turtle's sea water supply," she said.

"The next day we continued our journey to Shark Bay where we were met by Dave Holley at Ocean Park. We checked on the turtles every couple of hours during transportation and they arrived safe and sound in Turtle Bay."

According to Dave, the five hatchlings, which were around 20 to 25 centimetres in length, were about 12 months old and are likely to have emerged from the nest between February and April last year.

"This is a yearly occurrence and the number of turtles that turn up down south is dependent on the number of hatchlings on the nesting beaches and or the strength of the Leeuwin current."

"The turtles released were strong and healthy so they have a reasonably good chance of survival. However the chance of any hatchling surviving to maturity is less than one per cent," he said.

Loggerheads are globally endangered and, like other turtles, they grow slowly, taking about 30 years to reach maturity. In Shark Bay they nest at Turtle Bay on Dirk Hartog Island as well as Shelter Bay near Steep Point and Dorre Island.



*Ben Fitzpatrick (Marine Science Program), Kevin Crane (Environmental Management Branch), Kevin Bancroft (Marine Science Program), Tom Holmes (Marine Science Program), Heather Taylor (Oceans Institute), Kim Friedman (Marine Science Program), Adam Williams (Karratha District) and (seated) Rob Connell (Karratha District).*

## Marine surveys in the Montebello and Barrow islands

**IN November last year, DEC conducted a large-scale survey of the coral and associated fish communities of the Montebello and Barrow islands marine parks and reserves.**

The survey marked the second field component of DEC's wide-scale monitoring program assessing the status of coral and fish communities in the Montebello/Barrow Islands marine conservation reserves. The surveys have additional significance at present due to the potential pressures that may be placed on marine communities in the region by a dredging program associated with the Gorgon gas development on Barrow Island.

The survey consisted of two week-long field expeditions, involving 10 scientific and technical staff from DEC's Marine Science Program, Environmental Management Branch, the Karratha regional office and The University of Western Australia's Oceans Institute.

DEC Marine Research Scientist Tom Holmes said the trips were significant for the spatial scale over which surveys were conducted as well as for the connections they forged between staff.

"These collaborations between regional and

metropolitan DEC staff and between DEC and the Oceans Institute are extremely important to DEC's future marine monitoring and research objectives in regional WA," he said.

Twenty-six sites were intensively surveyed throughout the eastern Montebello and Barrow islands area, encompassing a wide range of locations and habitats.

"Although results are still being analysed, preliminary evidence indicates that both coral and reef fish communities throughout the islands are generally in excellent condition, highlighting its position as an area of regional marine biodiversity significance within WA," Tom said.

Information collected from these trips will form the baseline for future DEC monitoring of marine communities throughout the region, with dredging on the eastern side of Barrow Island due to start in March or April and to continue for the next two years.

"The current monitoring process will continue over the next three years as part of a more systematic program across WA's reserve estate, and has been partially facilitated through funding provided by offsets from the Gorgon gas development," Tom said.



## Course targets acid sulfate soils

**ENVIRONMENTAL consultants and other professionals involved in managing land developments recently took part in a three-day training course on acid sulfate soil assessment and management run by Southern Cross GeoScience and DEC.**

The course, delivered with the assistance of *Caring for our Country*, aims to provide common knowledge base to those who write and implement *Acid Sulfate Soil Management Plans* and those who assess and approve them.

Developed in conjunction with the relevant regulatory authorities, the state-specific course provided a unique opportunity for both proponents and assessors to discuss different aspects of managing acid sulfate soils.

Professor Leigh Sullivan and Professor Richard Bush, two leading experts in the field of acid sulfate soil management and remediation and directors of Southern Cross GeoScience, presented at the WA course, along with representatives from DEC, The University of Western Australia and private consultancy firm RPS.

DEC's Acid Sulfate Soils Section Manager Stephen Wong said acid sulfate soil landscapes were common throughout Australia, particularly in coastal regions.

Acid sulfate soils can react with oxygen in the air when excavated or dewatered. After exposure, these soils begin to oxidise, producing acid and mobilising metals such as iron, aluminium and arsenic that can impact upon the surrounding environment and nearby infrastructure.

"Surrounding aquatic environments can be seriously impacted by inappropriate management of these soils," Stephen said.

"The GeoScience course has been designed to equip professionals with the skills and knowledge to manage the potentially hazardous soils."

Professor Sullivan said it was expected the professional development course, to be run in each state and territory, would deliver better environmental outcomes for coastal areas.

He said the course would be provided for a second time in WA later this year.

For information about the work of Southern Cross GeoScience or to register for upcoming courses visit [www.scu.edu.au/geoscience](http://www.scu.edu.au/geoscience) or contact the course project officer Chrysy Clay at [chrysy.clay@scu.edu.au](mailto:chrysy.clay@scu.edu.au)

For more information on acid sulfate soils in WA, visit DEC's website [www.dec.wa.gov.au/ass](http://www.dec.wa.gov.au/ass).

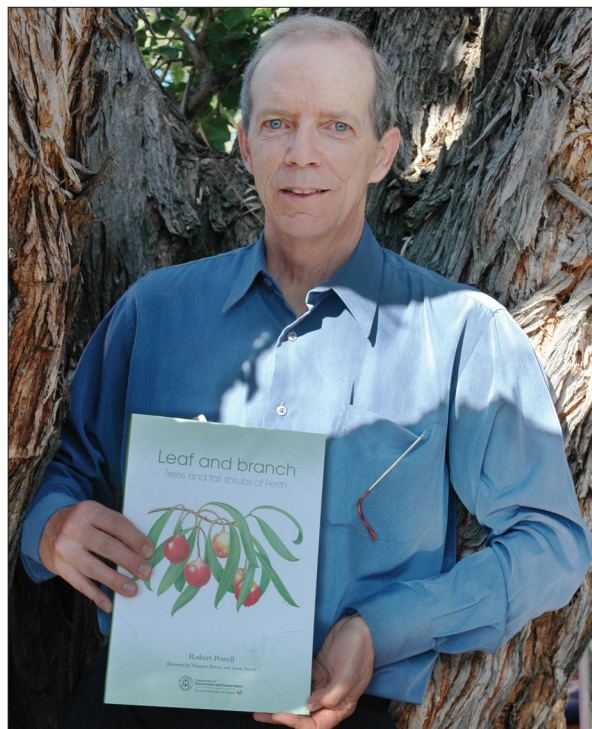
# New books to delight readers

**TWO DEC titles launched in March are shining light on Perth's trees and tall shrubs and showcasing one of the State's most beautiful environments.**

*Kalbarri*, the department's newest title, was written by DEC Editor and Features Writer Samille Mitchell and designed by Supervising Graphic Designer Natalie Jolakoski.

Corporate Communications Manager Madeleine Clews said the book took readers on a journey of the area's rich history and detailed its geology, and native flora and fauna.

"Readers can expect to be treated to spectacular photos coupled with interesting, easy-to-read information about one of the State's favourite destinations," she said.



Leaf and branch: Trees and shrubs of Perth author Robert Powell.

"It is an essential companion for any visitor to Kalbarri or the armchair traveller."

A familiar, but thoroughly updated and revised, title – *Leaf and branch: Trees and tall shrubs of Perth* – was also launched in March.

Written by former DEC employee and well-known naturalist Robert Powell and designed by Graphic Designer Tiffany Taylor with editorial support from Samille, *Leaf and branch: Trees and tall shrubs of Perth* uses descriptions and illustrations to enable readers to identify Perth's species. The easy-to-read text helps the reader to understand and appreciate each tree or shrub.

"The book is designed to be read at leisure or used in the field as a quick-reference tool," Robert said.

"It is highly suitable for nature-lovers, for students of any age and for visitors to WA.

"I hope the book will help give readers the starting-point of beginning to recognise some local species, from which knowledge and appreciation of our natural environment can grow."

Both titles are available from good bookshops, newsagents, tourist information centres and DEC offices or from WA Naturally by phoning (08) 9334 0333 or going online at [www.dec.wa.gov.au/shop](http://www.dec.wa.gov.au/shop).

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