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Cane toads move west with wet season

MAPPING undertaken in the Kimberley by DEC during the wet season has revealed that cane toads have been found up to 35 kilometres west of the WA-NT border.

State Cane Toad Initiative Program Coordinator Corrin Everitt said DEC's cane toad team and community groups had closely monitored the movement of the invasive species during the wet season, the first since cane toads crossed the WA-NT border last year.

"The season generally occurs between December and April and, as expected, during this period the rains have helped cane toads to travel further west," Corrin said.

"Breeding populations are still concentrated around the WA-NT border and, as the region dries out, our surveillance work will take us further afield where we will get a better idea of the distance that explorer toads have travelled during the wet, as well as their abundance in these areas.

"Cane toads will continue to travel until the temperature cools and until such time we are expecting to still find explorer toads in and around the Ord Valley."

Corrin said cane toads thrived in wet season conditions and the lack of access to wet areas made it difficult to undertake effective management operations.

Ranger Douglas Gerrard, Miriuwung Gajerrong Ranger Andy Reid and Survey Leader Lauren Brown monitoring in the Pincombe Range.

"The northern monsoonal climate has a significant impact on the rate of advance of toads as it provides ideal conditions for high rates of movement and dispersal into new areas," she said.

"Toads at the frontline can move up to three kilometres in one night during wet conditions. However this season, the Kimberley has experienced a below-average amount of rainfall and this seems to have slowed their advance.

"Despite this, earlier this year three adult female cane toads were found in Lakeside, a residential suburb of Kununurra, as well as two at the Rodeo Grounds a couple of kilometres east and a further eight toads were sighted along Egret Close and Fish Farm-Mud Springs Road."

Corrin said DEC would continue to implement measures outlined in the *State Cane Toad Strategy for Western Australia* during the dry season, including further biodiversity surveys in the East Kimberley to monitor the potential impact of cane toads on native wildlife and using Nifty the detector dog to inspect freight entering WA.

"We will also be continuing with cane toad surveillance activities and scientific research," she said.

New technology to kick-start WA's mallee industry

DEC's Low Emissions Energy Development (LEED) fund has contributed $1.5 million to a new machine designed to speed up harvesting in Western Australia's emerging mallee industry.

The prototype, developed by the Future Farm Industries CRC, was launched last month.

Speaking at the launch in Narrogin, Environment Minister Donna Faragher said the new harvester was good news for sustainability and developing climate change solutions in WA.

"The mallee industry has enormous potential in helping to achieve important biodiversity objectives," Mrs Faragher said.

"These include salinity control through improved water management, providing additional habitats for native fauna and helping avoid the introduction of weeds by using native mallee species.

"The economic benefits of a healthy mallee industry are also important. It provides the opportunity to have a new, large-scale, commercially viable crop that will create jobs in the wheatbelt while complementing other farm production activities.

"In the past couple of decades, the industry has been developing in WA thanks largely to the efforts of about 1,000 farmers who have planted about 13,000 hectares of mallee.

"Converting a belt of mallees into a stream of biomass that can be used to produce bio-energy is a very challenging task that will be vastly improved by a prototype harvester that tackles an important barrier to developing a successful industry."

The vital role DEC played in the development of the prototype mallee harvester and the prospective mallee industry was widely acknowledged at the launch.

DEC's John Bartle and Rick Giles have been key players in the development process with ongoing support from three consecutive chief executive officers —Dr Syd Shea, Dr Wally Cox and Keiran McNamara. The outcomes now being realised emphasise the value and importance of this long-term commitment and vision with regard to challenging projects.

Energy Minister Peter Collier said bio-energy investment was important in developing low emissions technologies with the potential to create jobs and open important export markets.

"The Liberal–National Government is focused on supporting technologies to help WA lead the nation in low emissions bio-energy and renewable energy including solar, wave and geothermal," Mr Collier said.

"While there are great prospects for renewable energy in WA, the State faces many challenges in meeting the national target of 20 per cent energy from renewable sources by 2020.

"Industry investment and partnerships with individuals, local landholders, businesses and government are key to making this a success."

The LEED fund is providing $30 million across WA to support development of low emissions technologies.

Sea lion freed from fishing line

DEC staff successfully rescued an Australian sea lion near Rat Island in the Houtman Abrolhos Islands after it became entangled in fishing line.

DEC officers were kept informed of the sea lion's location by Department of Fisheries officers and rock lobster fishers working in the area.

Nature Conservation Regional Leader Anthony Desmond and District Wildlife Officers Rob Goodfellow and Kevin Marshall carried out the rescue.

Kevin said they removed the fishing line from the sea lion's neck last month after using a Department of Fisheries boat to access the island where the animal was known to haul out.

"The line had started to cut into the animal's neck when we captured it so it was lucky that we were able to reach it when we did," he said.

"Locating and capturing a 50-kilogram female sea lion is not easy.

"The sea lion had previously been caught and so was very observant and cagey.

"After several failed attempts, Anthony and Rob managed to get close enough to net her, by gradually edging their way closer.

"Although she was not fully grown, they are strong animals and it was challenging, especially when seven other sea lions including adult males were getting close.

"When other sea lions in the colony see one being captured they try to help the animal, creating an additional hazard for the rescuers."

Making sure that both the animal and people capturing it don't get hurt requires special equipment and careful planning.

The Australian sea lion colony at the Houtman Abrolhos Islands is the most northern breeding colony of this species.

"Discarded fishing gear is a serious issue and this is the second time in the past few years that a sea lion has become entangled at the Abrolhos," Kevin said.

Anyone who sees a sick or injured animal should maintain a safe distance and contact DEC's Wildcare Helpline on 9474 9055.

District Wildlife Officer Rob Goodfellow with the trapped sea lion.

PhD student visit uncovers hidden leech species

DEC Research Scientist Adrian Pinder and Technical Officer Anna Leung recently assisted City University of New York (CUNY) PhD candidate Anna Phillips in the field, collecting leeches for her project.

Undertaking a PhD in leech systematics, Anna spent her one-week stay in Western Australia collecting and identifying various leech species, in particular the family Hirudinidae—medicinal leeches found in many of the State's wetlands and rivers—on behalf of the American Museum of Natural History.

Leech species of this family are found on every continent outside Antarctica. Having conducted collecting expeditions in countries such as Zambia, Rwanda and Vietnam, Anna said that the Australian leeches she had come across were unique to Western Australia and would assist in the understanding of the evolutionary relationships of leeches.

"It has been very exciting to come across hidden and unknown species but there is definitely a lot of work to be done. I look forward to returning to Australia to collect more species and build upon the classification breakthroughs that have come out of this trip," she said.

Adrian said that the experience had been invaluable for both parties.

"This partnership has tied in well with DEC studies into aquatic biodiversity distribution patterns across WA, helping us track which invertebrates can be found in certain wetlands," he said.

"Anna's collection, the naming of specimens and molecular analyses of relationships will be an extremely valuable contribution to our past, present and future research."

Anna also spent a day at the WA Museum where she identified additional specimens to build on the field collections.

Anna will now head back to CUNY and the American Museum of Natural History in New York to further resolve leech evolutionary relationships and biodiversity.

"Working with Adrian and the WA Museum has been very helpful and will contribute to medicinal developments for leeches which will hopefully counter their reputation as pests," she said.

PhD candidate Anna Phillips.

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Return of *Trash My Ad*

KEEP Australia Beautiful WA hopes to engage creative young minds in the battle against litter for the second consecutive year via *Trash My Ad 2*, which has been launched online.

Entries are now open for anyone aged 25 and under to submit their own TV commercial or, for the first time, print advertisement that delivers anti-litter messages targeted at their own age group, for the chance to win up to $1,000 prize money.

Trash My Ad Coordinator Maureen Maher said the campaign promised to be bigger and better in 2010.

"We had 30 entries last year from around the country," she said.

"Littering is a problem in WA and about 40 per cent of 18 to 24 year olds admit to having littered in a public place.

"While this figure is cause for concern, it also shows that the majority of young people are doing the right thing. *Trash My Ad 2* gives young people a chance to use their imaginations to help improve litter control and make a difference in their community."

This year there are two video categories—secondary school and 18 to 25 years—with winners in respective categories receiving $1,000.

There are three print ad categories—primary school, secondary school and 18 to 25 years—with winners in each category receiving $500.

"This year we have included a print category to enable younger children and artists who do not have access to filming equipment and resources to enter," Maureen said.

All winners will have the opportunity for their anti-littering messages to be used in future Keep Australia Beautiful WA campaigns.

Last year the competition was won by Steve Cardelli from New South Wales who created 'Trash Victims', an original 30-second ad showing animals in hospital beds talking about being harmed by human littering.

"In addition, the video and print entries with the most public votes will each win a $250 People's Choice Award. We encourage family, friends and anyone interested to get involved and rate the ads on our website's 'trash-o-meter'," Maureen said.

"Advertisements will be uploaded on to the website as soon as they are submitted."

All entries can be viewed at www.trashmyad.com.au and will be judged by a panel of experts, including advertising and marketing specialists and a youth panel.

The competition is open to all Australians aged up to 25 years. Entries close on 2 July 2010.

For more information on *Trash My Ad 2* visit www.trashmyad.com.au, email kabc@dec.wa.gov.au or phone 6467 5122.

Rockingham cleans up State beach award

ROCKINGHAM has been recognised as Western Australia's cleanest beach for 2010.

The Clean Beach Awards are organised by Surf Life Saving WA and Keep Australia Beautiful WA, supported by DEC. They aim to encourage the care, protection and management of WA's coastal regions.

Environment Minister Donna Faragher presented the award, saying that Rockingham Beach's victory was testament to the City of Rockingham's commitment to making it user-friendly, while also protecting the environment.

"Rockingham Beach is a focal point for locals and tourists and a key feature of the natural environment," she said.

"The infrastructure and facilities, such as the dive trails, offer opportunities for interaction with nature as well as the area's recent naval history."

Rockingham Beach has a sound resource management strategy that has seen the installation of large underground tanks to filter storm water and remove pollutants before the water can drain into the ocean.

In addition, rehabilitation works have been integrated into the dune system to protect the foreshore against the heavy storm surges that occur in winter.

As well as winning the overall title, Rockingham Beach also took out the awards for Resource Management and Friendly Beach.

Port Hedland's Pretty Pool and Cemetery beaches picked up the Community Action award for the efforts of local business and residents to reduce litter and for a turtle monitoring program.

Gnaraloo Station, north of Carnarvon, earned the Environment Protection award for its efforts in looking after Gnaraloo Beach and its flora and fauna, including loggerhead and green turtles.

The Litter Prevention award went to Bill's Bay, a beach on the shores of Ningaloo Marine Park.

Rockingham Beach will represent WA in the 2011 national Clean Beaches Awards to be held in Perth in March next year.

Environment Minister Donna Faragher presents Rockingham Mayor Barry Sammels with the State Winners Award.

Launch of Bandicoot Refuge Project

DEC, in conjunction with Coastcare WA, is currently trialling artificial refuges for a small and vulnerable population of quenda, or southern brown bandicoot, along Challenger Beach coastal reserve.

Ground-dwelling mammals such as quenda frequently find refuge in logs and fallen trees and the removal of this woody debris in recent years has been linked to the decline of many of these mammals.

Launched in April, the Bandicoot Refuge Project observed, through radio tracking, that quenda took refuge in rabbit burrows to avoid their predators. However, there was little research conducted into artificially created ground refuges providing a long-term solution.

The primary aim of the project is to determine whether quenda will use artificial refuges in a small urban reserve and to determine whether quenda activity will increase in areas immediately adjacent to the artificial refuges.

DEC Regional Ecologist Geoff Barrett said that the concept for the project and partnership was brought to his attention by Perth Region NRM's South Metro Coastcare Officer Craig Wilson in September 2009.

"Craig Wilson contacted me to discuss the possibilities of a project to assist a small population of quenda along Challenger Beach," he said.

"We know that small populations of mammals are vulnerable to local extinction following fire and predator activity, so we thought about a trial of terracotta pipes as potential refuges.

Geoff said that the main concern was whether quenda would use the refuges as they were used to brush hides constructed within dense, low vegetated areas.

"What was interesting is that the refuges were immediately occupied," he said.

"During the hotter weeks in December the refuges appeared to have been abandoned, so we had some help from GreenCorps volunteers who piled sand and brush over the refuges to bring down the temperature. This seems to have worked as the quenda started using them again.

Concrete chambers have since been added to protect the pipes, and quenda diggings are being monitored to gage activity, which has remained constant to date.

"We intend to monitor the refuges for another year and if they continue to be used by quenda we would like to see whether constructing refuges will encourage quenda to move into patches of urban bushland that are not yet occupied," he said.

Conclusions drawn since the implementation of the Bandicoot Refuge Project confirm that quenda will use artificial refuges constructed from terracotta pipes. However, these refuges may prove too hot during the summer months, a problem that may be overcome by partially burying the pipes.

Quenda of all ages appear to be using the refuges but their activity within an area does differ between sites with and without artificial refuges.

For more information about the Bandicoot Refuge Project, please contact Geoff Barrett on 9423 2907 or email Geoff.Barrett@dec.wa.gov.au.