



BIODIVERSITY RESEARCH

Newsletter of the NSW Biodiversity Research Network

Issue No. 25

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EDITORIAL

This is the 25th edition of the BRN newsletter! Since its inception in 2002, the newsletter has been a comprehensive source of news, research and information regarding biodiversity. Readership has increased to currently reach over 560 people, including subscribers from government departments, environmental NGO's, universities, consulting companies and more. The newsletter is distributed around Australia and also includes a number of subscribers based overseas. Subscribers continue to grow with each edition and this is largely due to you, the readers, passing the newsletter onto friends and colleagues. I encourage you to continue doing so because a large readership means your submissions are being widely disseminated, giving you the opportunity to communicate your work and learn more about what others in the world of biodiversity are getting up to!

Thanks to everyone who sent me articles for this edition – they were much appreciated.

To all the readers: your contributions are vital to the continuation of this newsletter so I encourage you to keep sending in items of interest or current research. You can either email me a submission on Suzette.Rodoreda@environment.nsw.gov.au or fax: (02) 9585 6606 or give me a call on: (02) 9585 6507.

I hope you enjoy the news stories and research items below.

Regards,

NSW Scientific Committee final determinations

Final determinations for the period 1st January 2008 to 31st March 2008 are as follows. For details of the determinations go to:

<http://www.environment.nsw.gov.au/committee/ListOfScientificCommitteeDeterminations.htm>

Allocasuarina luehmannii Woodland in the Riverina and Murray-Darling Depression bioregions - Endangered Ecological Community listing. Gazetted Friday, 28 March 2008

Rotala tripartita (a herb) - endangered species listing. Gazetted Friday, 28 March 2008

Sandhill Pine Woodland in the Riverina, Murray-Darling Depression and NSW South Western Slopes bioregions - Endangered Ecological Community listing. Gazetted Friday, 28 March 2008

Sloane's Froglet *Crinia sloanei* - vulnerable species listing. Gazetted Friday, 28 March 2008

Pterostylis despectans (terrestrial herb) - critically endangered species listing. Gazetted Friday, 28 March 2008

Prasophyllum innubum (terrestrial orchid) - critically endangered species. Gazetted Friday, 28 March 2008

Prasophyllum keltonii (terrestrial leek orchid) - critically endangered species listing. Gazetted Friday, 28 March 2008

Tableland Basalt Forest in the Sydney Basin and South Eastern Highlands Bioregions - endangered ecological community listing. Gazetted Friday, 4 January 2008

FEATURES

Indigenous Sea Rangers Return from Mexico

By Joshua Kitchens

A week-long international celebration of Indigenous cultural practices and management of marine turtle concluded in Mexico this January, but the experience gained by four Indigenous land and sea managers from the Torres Strait and North-East Arnhem Land will last a lifetime.

The small seaside town of Loreto, on the Mexican Baja California Peninsula, hosted this year's Symposium on Sea Turtle Biology and Conservation. Over 1000 scientists, conservationists and Indigenous land and sea managers from 60 nations converged on the town to explore the theme, "Native Oceans".

The delegation from Australia was sent to Mexico through a partnership between the North Australian Land and Sea Management Alliance (NAILSMA), the Torres Strait Regional Authority, Dhimurru Land Management Aboriginal Corporation, James Cook University and the United States organisation, Ocean Revolution. The delegate's attendance was made possible through travel funding provided by James Cook University and The Christensen Fund.

NAILSMA's Executive Officer, Mr Joe Morrison said the exchange linked Indigenous people from Australia's northern coastal regions with the Seri Indians of Mexico and facilitated the exchange of both cultural and technical information of marine turtle species.

The Torres Strait Regional Authority's (TSRA) Chairperson Mr Toshie Kris said he was pleased that three representatives from the Torres Strait, including the TSRA's Dugong and Marine Turtle Project Liaison Officer and JCU Masters student Mr Frank Loban, participated in the international event.

"Such opportunities are invaluable and with the marine turtle playing a critical role in the Torres Strait's culture and way of life, it is important that our people learn how to sustainably manage this importance species," said Mr Kris.

Mr Loban said the opportunity to travel to Mexico for the Symposium was an extremely important learning experience.

"The highlight was the coming together of Indigenous people from across the world, sharing ideas and knowledge about turtle conservation and why it is significant to our lifestyles and livelihoods. Indigenous people from places like Mexico and Venezuela have been involved in turtle conservation for a long time and we can learn from their experiences," he said.

Mr Loban explained that the management of Turtle and Dugong by Indigenous people was critical.

"Turtles are species that are harvested by Indigenous peoples for subsistence, medicinal and cultural purposes, so it is important that the primary custodians using the resource are involved in conserving it. We don't want to be talking to our children about turtles from a book, we want to make sure we can continue harvesting and managing them and that future generations will get a chance to see a real, live turtle", said Mr Loban.

A major aspect of the NAILSMA Dugong and Marine Turtle Project, which is driven by Traditional Owners, is to build networks amongst Saltwater People that are linked to governments and the scientific community. For more information about the NAILSMA Dugong and Marine Turtle Project, visit www.nailsma.org.au.

Contacts:

NAILSMA Media Contact: Joshua Kitchens, telephone (08) 8946 6684

TSRA Media Contact: Susan Reilly, telephone (07) 4069 0700

JCU Media Contact: Mark Hamann, telephone (07) 4781 4491

One-third of NSW Flora Banked for our Future

Taken from Botanic Gardens Trust Media release (25th February 2008)

In what might be the best investment for our future, a third of the State's flora is now stored in seedbanks in New South Wales and the UK as insurance against climate change. Executive Director of the Botanic Gardens Trust, Dr Tim Entwisle said the 1000th seed sample has been sent to the UK, representing a significant achievement for the conservation of NSW plants.

'We now have a third of the State's flora in our seedbank,' Dr Entwisle said. 'The 1000th collection is from the rare *Acacia pubescens*, known as Downy Wattle or Hairy-stemmed Wattle, listed as a vulnerable species. 'We've duplicated 1000 of our collections to Kew's Millennium Seed Bank in an effort to contribute to the global effort to conserve 10 per cent of the world's flora by 2010.

'Our next big challenge is to focus on rainforest seeds. Nearly 2000 Australian rainforest species have seeds that are sensitive to drying out and can't be stored easily in our seedbank. Rainforest plants have evolved odd ways to distribute and germinate their seed, such as the fruit travelling through the gut of Cassowaries, but the seed just doesn't last. 'We'll be able to collect a variety of rainforest species and test cryostorage and other techniques thanks to funding from Allianz Insurance and an anonymous donor,' he said.

The seed collection is undertaken by SeedQuest NSW, an international partnership for plant conservation between the NSW Seedbank, part of the Botanic Gardens Trust, Sydney and the Millennium Seed Bank of the Royal Botanic Gardens, Kew, UK. Leader of Kew's Millennium Seed Bank Project Dr Paul Smith, in Australia this week said with future climate change scenarios and the ever-increasing impact of human activities, Kew's Millennium Seed Bank Project is already looking towards the next 10 years.

By 2010, the Royal Botanic Gardens, Kew's Millennium Seed Bank Project and its partners in over 50 countries around the world will have collected and conserved seeds from 10 per cent of the world's wild flowering plant species,' Dr Smith said. 'Between 2010 and 2020, we aim to significantly increase collecting targets and associated conservation programmes with partners around the world. To help us achieve our ambitious vision and targets for the next ten years to 2020 we must attract funding.

'The species for collection and conservation are prioritised by Kew's partners and include the rarest, most threatened and most useful species known to man. These seed collections are actively used in scientific research and the potential benefits of the chosen species range from food, medicine and building materials for rural communities to disease-resistant crops for agriculture,' he said.

Kew's Millennium Seed Bank Project is the largest ex situ conservation project ever conceived. Its Seed Bank is the largest seed bank in the world for the conservation of seed from wild species and has the capacity to store up to half of the world's wild flowering plant species.

Australia's native biodiversity is of global significance, making its contribution to the project of immense importance. It is home to 14 per cent of globally threatened plant species and is one of only 12 'mega diverse' countries. The estimated 20,000 flowering plant species found in Australia make up 6.5 per cent of the world's total.

For more information on the NSW Seedbank see:

http://www.rbgsyd.nsw.gov.au/science/hot_science_topics/nsw_seedbank

The Occurrence and Cultivation of Native Figs (*Ficus* sp.) in Southeastern Australia

By Ian Anderson. Extract taken from "Australian Plants" (March 2008) and edited for this newsletter by S. Rodoreda

Native Figs are a diverse group; there are 42 species in Australia but according to the Flora of Australia, they are usually not considered to be of Gondwanan origin. Unlike Banksias, for example, Figs are believed to have colonised Australia from Asia when Australia moved within reach as a result of continental drift and periods of low sea level. For example, the striking giant native Fig, *Ficus microcarpa* var *hillii*, which has been widely planted in and around Newcastle as a specimen tree occurs naturally not only in Northeastern Australia but also in parts of Indonesia, New Guinea and New Caledonia and interestingly, at least one other variety of *Ficus microcarpa* occurs naturally in India. The known southern limit of native Figs growing naturally on the coast of southeastern Australia has extended over time however it is still somewhat of a mystery in some circumstances, due to the fact that many *Ficus* species have been historically planted as ornamentals. An example of the intricacies in determining the natural extent of the genus is outlined below.

In September 1860, Dr Ferdinand Mueller, the Government Botanist of the colony of Victoria, made an excursion to Eden in south-eastern New South Wales. There, in the vicinity of Twofold Bay, Mueller collected specimens which he identified as *Ficus aspera*, a name applied in those days to one of the group of sandpaper figs (now *Ficus coronata*). So in 1873 in *Flora Australiensis*, the English botanist George Bentham noted that Twofold Bay was "the most southern point reached by any *Ficus*".

As late as 1958, the Australian Encyclopaedia contained the statement that "no species of fig trees grow spontaneously in either Victoria or Tasmania". But according to an article by Norman Wakefield, only a few months later, specimens of *Ficus coronata* were identified from the northern side of Mallacoota Inlet in far-eastern Victoria. Furthermore, photographic evidence exists of what appears to be a Port Jackson Fig (*Ficus rubiginosa*) also growing in Mallacoota. There is no sign that this tree established by strangling another tree, which therefore may indicate that the Fig was planted. The property where the Fig was discovered was owned by the late E. J. Brady, a writer who settled in Mallacoota in the early 1900s. He died in the 1950s but family and historical records suggest he had an orchard as part of his property. The Fig may have been planted as a part of this, although the fruits of the Port Jackson Fig are rather dry and not very palatable compared with the domestic Fig. A descendant can recall E. J. Brady telling his grandchildren to keep away from the Fig tree as there were often bats in it and it could be unhealthy. It must therefore already have been old enough to fruit when he was alive. Port Jackson Figs were sometimes planted in New South Wales for ornamental purposes but if E.J. Brady did plant the Fig, where did he obtain the seed or seedling? Could a seed have been transported by birds or flying foxes from Eden? Perhaps someone has the answer.

A note from the Author: A number of people contributed information used in preparing this article. Their help is greatly appreciated.

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CULTURAL HERITAGE NEWS

Recognising Aboriginal Cultural Values of Wetlands

By Damian Lucas

Under the Cultural Values of Wetlands project, Aboriginal Communities are currently being consulted about environmental restoration of the Macquarie Marshes and Gwydir Wetlands. It is the first time that these communities have been consulted about planning for the future of these important ecological areas. At a recent workshop held at the Macquarie Marshes key issues raised by the Community included: restoring the health of the wetlands, identifying and protecting cultural sites and culturally important plans; recognising Aboriginal custodianship of country and Aboriginal communities having control over cultural flows (a 'cultural' allocation of water). Restoring access to the wetlands, which are often contained within private property, was also raised as an important concern. With appropriate access, the wetlands can once again become a cultural resource for the community – a place for teaching and learning about culture. The Cultural Values of Wetlands project is a NSW Department of Environment and Climate Change (DECC) initiative to demonstrate that environment restoration is also an opportunity for fostering and reviving connections to Country. If you would like further information on this project please contact Damian Lucas on ph: (02) 9585 6833 or email: damian.lucas@environment.nsw.gov.au or Danielle Flakelar-Carney on ph: (02) 6883 5342 or email: Danielle.flakelar@environment.nsw.gov.au. *

Request to Repatriate Carved Trees

In the 1940s over 100 carved trees were removed from Collymongle station near Collarenebri, west of Moree, and deposited with the Victorian Museum, South Australian Museum and University of Queensland. The Collarenebri Aboriginal Community has expressed a strong desire to have the carved trees repatriated back to country. The NSW DECC in conjunction with the National Museum worked to fund seven members of the Community to visit Canberra for the 'Cages of Ghosts' photographic exhibition at the National Library, which featured seven of the trees. The Community members also visited the National Museum to view sacred objects including a breast plate and carved tree from the Collarenebri area. The Community members have discussed long term management issues with the Museum.*

Bermagui Waterhole Declared as Aboriginal Place

In September last year, the Bermagui Waterhole was declared an Aboriginal Place. The declaration not only gives it protection but acknowledges the special significance it has to Aboriginal People. The Bermagui Waterhole includes a traditional camping place for the Yuin people, a source of freshwater, fish and shellfish and part of a traditional walking track between important Yuin ceremonial and spiritual sites.*

Inglebah Aboriginal Place

The Inglebah Aboriginal Place recognises one of the first Aboriginal reserves established in the early 1890s, which was occupied by many Aboriginal families to the 1950s. The site was a camping area traditionally used by Aboriginal groups who gathered for fishing and ceremonial activities and a number of Aboriginal people are buried there. Minister Verity Firth met with members of the Inglebah Aboriginal Community in October 2007 to announce the declaration of the Aboriginal Place.*

Landscape Mapping for Culgoa National Park

The NSW DECC and Illawarra TAFE have collaborated to map the cultural heritage of Culgoa National Park, north of Bourke. The mapping aims to illustrate how all parts of the landscape have cultural histories. In the past, most government and non-statutory registers use point datasets to represent cultural heritage places as discrete 'sites', which can create management issues where 'sites' rather than whole landscapes are managed for cultural values. For the purpose of mapping, the park's heritage is represented by five overlapping historical themes – Muruwari Country; Marking the Land (surveying); Working the Land (pastoralism); Living on the Land and Conserving the Landscape. *

**For further information about these stories see the NSW DECC Culture and Heritage Newsletter (Jan 2008) at: <http://www.environment.nsw.gov.au/chpublications/index.htm>*

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FAUNA NEWS

INVERTEBRATES

First Record of Leafhopper Tribe in Australia

By Murray Fletcher

Leafhoppers of the subfamily Deltocephalinae are some of the best known vectors of plant diseases and Australia has a rich and diverse native fauna in this group. However, many of the native Deltocephalinae have not been scientifically named. A paper just published provides description and names for four previously unnamed Australian leafhoppers and places them in the genus *Goniagnathus*. This genus belongs to a Tribe, the Goniagnathini, which had previously not been recorded in Australia and these four new species, along with an Australian species described in 1966 by J.W. Evans but placed into the wrong genus, represents the first record of this Tribe in Australia. The Tribe is distributed from Europe to North Africa and into the Oriental region, particularly India and Sri Lanka and the species are typically associated with drier regions. The five Australian species of *Goniagnathus* are also associated with drier parts of the continent. The paper was published jointly by Dr Murray Fletcher, Orange Agricultural Institute, and Dr James Zahniser, Illinois Natural History Survey, USA. See: Fletcher, M.J. and Zahniser, J.N., (2008) The first record of Goniagnathini from Australia with description of four new species of *Goniagnathus* Fieber (Hemiptera: Cicadellidae: Deltocephalinae). *Zootaxa* **1692**: 43-54. Images and distributional notes for the Australian species are available at <http://www.agric.nsw.gov.au/Hort/ascu/leafhop/goniag.htm>

Beetle Extinctions on Lord Howe Island

Taken from: <http://www.amonline.net.au/display.cfm?id=2824> with permission from R. Hancock

Australian Museum entomologist Dr Chris Reid recently presented evidence that 11 species of beetle previously found only on Lord Howe Island have become extinct. There have been no sightings since 1916 of 11 large beetles endemic to the island, despite significant sampling of the island's invertebrate fauna over the years, including a systematic survey by the Australian Museum between 2002 and 2004. The findings by Dr Reid and colleague Dr Gerry Cassis, from the University of NSW, were reported at the combined *8th Invertebrate Biodiversity and Conservation / Society of Australian Systematic Biologists Conference*, held in Brisbane in December 2007. Dr Reid believes that Black Rats are likely to be responsible for the disappearance of the beetles. Rats have been implicated in the decline and extinction of other species on Lord Howe Island, including birds, lizards, a giant stick insect and land snails. The authors support the proposed eradication of rats from Lord Howe Island.

BIRDS

Significant Waterbird Breeding Still Under Threat

After such a long drought, Narran Lakes in north western NSW is seeing the most significant breeding event in the Murray Darling Basin in eight years. NSW DECC staff from the National Parks and Wildlife Service have observed approximately 30,000 pairs of straw-necked ibis nesting at Narran Lakes, which Regional Manager Rob Smith says is just in the nick of time. "We haven't seen a breeding event of any size out here for eight years and these birds only have a life span for breeding of about the eight years, so we're on tender hooks about whether they would ever come back and breed." Smith claims that for the last 50 years, there has never been observed such a large gap between breeding years. However the Murray-Darling Basin Commission has just purchased 11,000 megalitres of water from QLD because in recent weeks the water level has been dropping and it was feared the adult birds could abandon their chicks. Richard Kingsford, a waterbird and wetlands expert at the University of New South Wales (UNSW), welcomed the purchase but noted that it raised serious questions about the environmental sustainability of water management. Read the news story at: <http://www.smh.com.au/news/environment/murraydarling-buys-water-to-save-30000-ibis-chicks/2008/03/25/1206207105067.html>, read the earlier media release at: <http://www.environment.nsw.gov.au/media/DecMedia08013101.htm> and the related report at: <http://sixtyminutes.ninemsn.com.au/article.aspx?id=399106>

Are Regent Honeyeaters Assured of their Foothold in the Capertee Valley?

By Tiffany Mason

Since 1994, the Capertee Operations Group (established to help conserve the Regent Honeyeater in its primary stronghold, the Capertee Valley) has been holding bi-annual tree-planting events in the valley to restore habitat for Regent and other declining woodland species. But how effective have these efforts been in attracting woodland birds and providing future resources, particularly for threatened species? And can the artificially established woodland habitat be improved? To answer these questions, the Capertee Operations Group conducted surveys in Spring 2007 of 28 of its planting sites, including some of the very first (planted in 1994) and some of the most recent areas to be revegetated. Whilst Regent Honeyeaters have not yet been recorded on the planted sites, the Operations Group is confident that the birds will begin to utilise the trees and shrubs once they mature, flower and begin supporting good populations of lerp. The surveys detected a total of 78 bird species, including three listed as threatened: Hooded Robin, Diamond Firetail and Turquoise Parrot. From an initial analysis of the results it became apparent that the single most important factor *negatively* affecting species richness on the planted sites was neither the age of the site nor the height of the trees, but the presence of Noisy Miners. The Noisy Miners occurred on those sites where the understorey had been lost (usually to hungry cattle!). To rectify the problem the Operations Group will consider going back to these sites to replant an understorey. Since Noisy Miners like to walk, rather than hop, creating a heterogeneous ground layer of grasses, forbs, rocks and logs may prove the most effective deterrent. Recreating the ground layer may prove to be the biggest challenge of all. For more information and to assist with tree-planting in the Capertee Valley, contact Tiffany Mason at Tiffany.Mason@cma.nsw.gov.au

Research for the Endangered Plains-Wanderer

An ongoing study of the NSW endangered Plains-Wanderer (*Pedionomus torquatus*) at Oolambeyan National Park, east of Hay, found only 13 birds over 15 nights of spotlighting. There is concern that because of the prolonged drought in the Murray-Darling Basin, the population of the species may have dropped by as much as 90%. The study has however located one male bird with four chicks, which is evidence that the birds are still managing to breed, despite the harsh conditions. The study is going to focus on the bird's food resources, which involves collecting seeds and trapping invertebrates.

Indian Ringneck – Potential Future Pest Alert

The Indian Ringneck Parakeet (*Psittacula krameri*), also known as the Rose-ringed Parakeet, is not native to Australia but is often kept as a cage bird and has been found to have significant potential to establish populations in Australia and become a pest. The bird is known to be a major pest of agriculture as they raid crops and grain storage facilities including barley, sunflower, nuts and fruit such as mango, guava, fig, grape and peach. A scientific risk assessment conducted by the Department of Agriculture and Food in Western Australia and endorsed by the national Vertebrate Pests Committee indicates that the Parakeet poses an extreme threat to Australia. Indian Ringnecks could also threaten biodiversity here if they become established. Native parrots such as Rosellas and the endangered Swift Parrot may be at risk from competition for nest hollows. Please report sightings of Indian Ringnecks to the freecall number: 1800 084 881. See pictures of the Parakeet on the Wikipedia website: http://en.wikipedia.org/wiki/Rose-ringed_Parakeet

MAMMALS

Toads Could Wipe Out Quolls

The World Wide Fund for Nature (WWF) has warned that the endangered Quoll population in NSW could be wiped out because of Cane Toads migrating from QLD. The marsupial predator can die from eating the poisonous toad. WWF's threatened species coordinator, Mina Bassarova says the Spotted-tail Quoll is particularly at risk because populations of the marsupial are small. "We know that the Western Quoll and the Northern Quoll are both killed from poisoning when they eat the cane toads, so it's considered likely that the Spotted-tail Quoll...would also be susceptible." Bassarova says an increase in nature reserve systems could protect the Quoll and other endangered animals. Read the full story at: <http://www.abc.net.au/news/stories/2008/03/25/2198676.htm>

New Ideas Needed for Fox Control at Uluru

Jim Clayton, a ranger at Uluru-Kata Tjuta National Park in the NT, has said that specially designed poison baits that were meant to attract foxes but leave dingoes unharmed have produced negative results because of the extreme conditions in the park. "Because it's such a dry environment out here, the baits desiccate so fast that they are not giving off a lot of odour. Then we trialled a commercially available aerosol that is supposed to be an attractant to foxes but we didn't find that that was particularly effective," says Clayton. Read the news story at: <http://www.abc.net.au/news/stories/2008/03/20/2195540.htm>

GENERAL FAUNA NEWS

Spotted Tree Frog – a Hop Back from Extinction

The endangered Spotted Tree Frog (*Litoria spenceri*) was discovered at Bogong Creek in Kosciuszko National Park in 1973, essentially by accident when Hal Cogger of the Australian Museum stopped his car there and found them basking in the sun. At that time, there was a viable population at Bogong Creek but soon after monitoring started, the population declined dramatically. Dave Hunter, a threatened species officer with the NSW DECC says it now seems almost certain that a fungus called chytrid is killing and infecting frogs worldwide. It is also now thought that humans may play a part in the spread of the pathogen. By 1998, the last known male frog from the area was taken into captivity to mate with captured females from an endangered Victorian population at Wheeler Creek. In conjunction with the Amphibian Research Centre in Melbourne, the DECC has released 600 of the offspring from these individuals as year-old frogs back into Bogong Creek over the last two years. Monitoring is on-going in the hope that the released individuals will develop resistance to the fungus. Read the media story at: <http://www.smh.com.au/news/environment/one-tiny-hop-from-extinction/2008/03/14/1205472088573.html?page=fullpage#contentSwap1>

Fish in Brazil Responsible for Seed Dispersal

In a study in Brazil's Pantanal, the largest freshwater wetlands in the world, researchers have found that fish have a role in distributing the seeds of tropical plants. During the flood season, many fish species feed on fallen fruit and as the waters recede, the fish return to their low water habitats, dispersing the seeds over a large area. Scientists have long known that fish disperse seeds in the Amazon but new research has examined the importance of seed dispersal by pacu fish (*Piaractus mesopotamicus*) for the Tucum Palm. The research discovered that the tree relies almost entirely on the fish for dispersal. These fish appear to be in decline from over fishing, causing researchers to worry that fishing is not only threatening the fish but the forest as well. Read a report at: <http://news.mongabay.com/2008/0205-pacu.html>

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FORESTS & FLORA

***Austrodanthonia* research queries necessity of local seed sources**

By Cathy Waters

NSW Department of Primary Industries (DPI) researcher, Cathy Waters recently completed a PhD study on genetic diversity of five widespread native grass species (*Austrodanthonia*). She looked at variation in plant morphology, chromosome numbers and DNA of 28 wild populations in central western NSW. While plants in different locations showed differences in morphology and flowering, DNA analysis showed little variation between populations. The study suggests that the evolution of *Austrodanthonia* is complex and the result of overlaying and interacting effects of broad scale and probably ongoing gene flow among populations and perhaps between chromosome race levels. This creates significant genetic variation for a range of ecologically important traits that are adaptable across a range of environments. When sourcing *Austrodanthonia* seed for revegetation, it may be more important to understand the nature and condition of the seed source sites rather than proximity of seed sources to the revegetation site. For more information contact: cathy.waters@dpi.nsw.gov.au.

Linking Restoration and Stabilisation at Taronga Zoo

By Wendy Kinsella

In 2001 Taronga Zoo embarked on restoring a degraded slope after a landslide above a 450 kilolitre recycle water storage tank at the Zoo's water treatment plant. The project included major stabilization works over a steep slope and also involved drainage lines and a pumping station. Restoration of vegetation was carried out in two stages covering an area of just under one hectare. Provenance seed was collected under license from Bradleys Head National Park while the majority of seed and cuttings were taken from Taronga Zoo's remnant vegetation and given to a contract nursery to propagate. Total planting numbers of tube stock were 20,000 native plants at a stocking rate of five plants per square metre. Following weed spraying, jute matting and stabilisation, the seedlings were planted and the tube stock grew quickly. It is now six years since the project was completed and major achievements include the return of many small birds to the area such as White-browed Scrubwrens (*Sericornis frontalis*), Superb Blue Wrens (*Malurus cyaneus*), Eastern Yellow Robin (*Eopsaltria australis*), and Eastern Whipbird (*Psophodes olivaceus*). Taronga Zoo has a current bird list of 116 species throughout the 33 ha zoo area. The key factors to the success of the project in the short term were detailed planning, selection of species and weed suppression with jute matting. Essential to any restoration project is the on going maintenance this was found to fluctuate according to the season. In the long term recruitment of plant species will have to be managed to obtain succession. For more information contact Wendy Kinsella on ph: (02) 9978 4661 or email: wkinsella@zoo.nsw.gov.au

Updated NSW Vegetation Classification and Assessment Database

By John Benson

Version 2 of the NSW Vegetation Classification and Assessment (VCA) database has been drafted and is being submitted for publication. This adds the over-cleared yet complex NSW South-western Slopes (SWS) Bioregion (10% of NSW) to Version 1 published in 2006 that covered the NSW Western Plains (53% of NSW). The NSW SWS Bioregion contains over 135 plant communities. All up over 320 plant communities are now classified across nine of the 18 Bioregion in NSW with work continuing on Version 3 of the NSW VCA that will cover the vegetation in the Brigalow Belt South and Nandewar Bioregions on the NSW north-western slopes. The aim is to cover completely the eight western NSW Catchment Management Authorities (CMAs) within a few years, thus providing a consistent bio-information system for Natural Resource Management and conservation planning across 80% of NSW. This fine level vegetation classification scheme is increasingly being used in the property vegetation planning process using the Biometric Tool and by consultants carrying out environmental assessments. To date the work has entailed the collation of over 350 published and unpublished vegetation maps and reports along with incorporating expert opinion. Over eight years, 30,000 km of field traverse has checked most of the vegetation of western NSW including most protected areas. Populating the 90 field NSW VCA database has entailed over 30,000 data entries with continuing revision as feedback comes in. The work represents the most comprehensive audit of vegetation type in protected areas in Australia and applies IUCN-like threat criteria to each listed community. The combined threat/protected area adequacy code in the NSW VCA database provides a rational risk assessment of NSW ecological communities. For more information on this project see:

http://www.rbgsvd.nsw.gov.au/science/hot_science_topics/vegetation_of_nsw

Climate Change and Fire: Impacts on Vegetation in the Greater Blue Mountains

A study in the Blue Mountains has looked at what the impacts might be of changing fire and climate regimes on plant functional types, e.g. plants that persist primarily by resprouting (resprouters) versus plants that reproduce by seed-stock (seeders). The work was based on analysis of existing data and new data collected from a stratified field survey. On the basis of the patterns produced by analysing current-day trends, hypotheses about trajectories of change in vegetation composition under future fire and climate regimes were predicted. The study found that in a warmer (and probably dryer) environment, resprouters will be disadvantaged and their numbers will gradually decline over time. Seeders are sensitive to high fire frequencies and so in a more fire-prone environment, seeder species may also be disadvantaged and ultimately decline in number. The author concludes that there is potential for the predicted hotter climate and more fire-prone conditions to put a whole range of plant species under pressure. Read the full report at:

http://nccnsw.org.au/index.php?option=com_content&task=view&id=1994&Itemid=971. This project was undertaken by Kate Hammill from the NSW DECC, funded by the NSW Environmental Trust (2005-2008).

New Guidelines for Identifying EECs

The NSW DECC has recently released new guidelines for identifying Endangered Ecological Communities (EECs). The guidelines are designed to assist land managers and decision makers to recognise and understand EECs. This is an important step in managing these landscapes as EECs are often degraded or in poor condition depending on management history, making them difficult to identify in the field. The guidelines include a description with common species, an outline of distribution and habitat, key threats and photos of the community where available. There are 11 guidelines currently available online: six coastal floodplain EECs and five other communities found in NSW. You can find the guidelines and further information about threatened communities on the following website:

http://threatenedspecies.environment.nsw.gov.au/tsprofile/home_tec.aspx. DECC has also produced an '**Indicative Coastal Floodplain Map Series**', which can be found on the Coastal Floodplain EEC profile pages. They are also available on DVD from Enviro-line (ph: 1300 361 967) and soon through your local Catchment Management Authority office.

GM Crops Still Banned in South Australia

The SA government has decided to extend the moratorium on Genetically Modified (GM) crops, which was due to expire in April. The State has joined Western Australia and Tasmania in extending their bans on GM crops, claiming that lifting the ban would threaten the "clean green" status of their wine and food industry. SA Premier, Mike Rann said, "we are yet to be convinced allowing GM crops will have a positive impact on the marketing of our food and wine to our important export destinations around the world". Among other concerns, the Premier noted that Japanese meat importers wanted a guarantee that none of the meat products they purchased had come from cattle that had eaten GM grains. The decision was made despite that fact that the SA Government's GM Crops Advisory Committee wanted the ban lifted in all parts of the State except Kangaroo Island. NSW and Victoria announced late last year that they would be lifting their moratoria on commercial crops of GM. Read the full news story at:

<http://theland.farmonline.com.au/news/nationalrural/grains-and-cropping/general/gm-ban-to-stay-in-south-australia-to-protect-wine-industry/78817.aspx>

Rainforest Biodiversity Shows Differing Patterns

A recent study has found that biodiversity may be more evenly distributed in some rainforests than in others and therefore may require different management and preservation strategies. This is just one of the conclusions of a large-scale study of a lowland rainforest in New Guinea, published in *Nature* (August 2007). Most research has focussed on 'hotspots': areas where differences in elevation, temperature, rainfall and other environmental factors boost diversity by creating diverse habitats within a short distance. The change in a region's species diversity between sites is called beta diversity. This study collected insects and plants from eight study sites across 75,000 square kilometres of contiguous forest and found low beta diversity for insects and plants, indicating that species tend to be widespread and biological communities change very little across large distances. The low beta diversity in this study has implications for biological conservation as it indicates that the total diversity of species in tropical rainforests may be lower than previously thought. Read the story at:

<http://www.sciencedaily.com/releases/2007/08/070808132022.htm>

Dam to Threaten Cambodian Forests

Cambodia's economy is growing but its antiquated, mainly diesel-fuelled power plants can meet only 75% of the demand, meaning frequent blackouts and more expensive rates than those of neighbouring countries Thailand and Vietnam. Prime Minister Hun Sen has agreed to at least four Chinese-funded hydropower projects to boost output from 300 megawatts (MW) today to 1,000 MW in a decade, which will require the construction of a large dam. However environmentalists say the dam's lake will cover 110 square kilometres and displace thousands of Indigenous people in nine villages. Furthermore, more than 200 animal species, including elephants, sun bears, leopards and the endangered Siamese crocodile would be affected upstream. Downstream, the disruptions to water flow could affect rare turtle species and hundreds of migratory fish. For the full news story, see:

<http://www.abc.net.au/news/stories/2008/03/26/2199961.htm>

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FRESHWATER RIVERS & WETLANDS NEWS

Food Web Functions of the Macquarie Marshes

A study into the food web functions of the Macquarie Marshes is being conducted by the UNSW, to help gain a better understanding of the Marshes water needs. After environmental flows were allowed back into the system earlier this year, the bird and fish breeding events taking place have given researchers the opportunity to monitor food chain relationships. "The project will link small invertebrates such as insects and worms to predators such as fish and birds under different flow scenarios", says the Upper House member for Barwon, Christine Robertson. The researchers have been granted a \$99,396 Environmental Trust research grant. Read the full story at: <http://dubbo.yourguide.com.au/news/local/general/water-needs-to-be-assessed-in-study/1204385.html>

The Future of the Lakes at the Mouth of the Murray

The Murray-Darling Basin Commission is considering the future of the lakes at the mouth of the Murray and will be looking at whether irrigation should be abandoned, or the lakes allowed to be filled with seawater. The local state MP Adrian Pederick is against the idea of filling the lakes with seawater, believing it would eventually kill the River Murray. Professor Mike Young from the Wentworth Group of Concerned Scientists says it will not be possible to keep the entire system going without rain. Read more at: <http://www.abc.net.au/news/stories/2008/03/20/2196064.htm>

Good Policy and Regulation can Save the Floodplains

Floodplains support a diverse array of life, most of which survives in a boom and bust cycle. During the floods (the "boom"), the floodplains are at their most diverse: waterbirds flocking and breeding, frogs emerging from under the ground, fish spreading onto the plains and plants sprouting from soil that appears lifeless during the bust. However Richard Kingsford, an expert on freshwater wetlands from UNSW believes that until recently, floodplains have been relatively neglected by government policy and regulation. Kingsford says floodplains such as those of the Murray and Macquarie Rivers are dying and whilst the NSW Government is making laudable efforts to buy back water from irrigators for the environment, the focus is usually on the rivers themselves and not their floodplains. Using satellite photographs, Kingsford's research team has identified 2000km of levees and channels on the Macquarie floodplain; structures that alter the natural cycles of the plain and its organisms and in the majority case are legally constructed. Kingsford states "If they [governments] are serious about sustainability and cleaning up the mess we have made of our rivers....Good flood-plain legislation and regulation are needed urgently". The NSW Government has vowed to crack-down on illegal earthworks in the Murray-Darling but of the 2000km identified in the report, only an approximate 400km are unapproved. Read the entire opinion piece at: <http://www.smh.com.au/news/opinion/save-the-plains-or-the-partys-over-for-the-brolgas/2008/02/25/1203788242151.html?page=fullpage#contentSwap1>, and read the related news story at: <http://www.abc.net.au/news/stories/2008/02/25/2171663.htm?section=australia>

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OCEANS & MARINE NEWS

Plan to Reduce Threatened Fish Catch in Western Australia

The WA Fisheries Minister Jon Ford has proposed changes to recreational fishing to ensure the survival of some of WA's most heavily fished species. The Government hopes to achieve a 50% catch reduction of threatened fish between Kalbarri and Augusta, including dhufish, pink snapper, baldchin groper, breaksea cod and red snapper. The 11 proposed changes include reduced bag limits for recreational fishers and greater protection of fish in the Abrolhos Islands. For more information, see the news story at: <http://www.abc.net.au/news/stories/2008/03/28/2201872.htm>

Funds for Sea Turtle Tracking Research

Australian Geographic has given almost \$20,000 to the Townsville-based Sea Turtle Foundation to fund a new satellite research project. The money will be used to fit up to six sea turtles with

satellite transmitters in an attempt to follow female sea turtles after they leave their Australian nesting sites. Sara Bell from the Foundation says: "We'll be able to follow a nesting sea turtle as she does her journeys up and down the beach, many times over the season and then be able to see where she goes afterwards – whether she'll swim back to Papua New Guinea or Indonesia or the Solomon Islands". See the news story at:

<http://www.abc.net.au/news/stories/2008/03/27/2200499.htm>

'Rabbit fish' can Help Australia's Reefs

Research has shown that the small, brown "Rabbit Fish" could be the answer to improving damaged parts of the Great Barrier Reef. David Bellwood from the Centre for Coral Reef Studies at James Cook University says the Fish have been filmed eating the weed that can sometimes smother young corals and destroy reefs. Bellwood says the Fish worked at 10 times the rate of other weed eaters but warns that although the population of Rabbit Fish in Australian waters are still relatively good, it is vital they are looked after. Read the news story at:

<http://www.abc.net.au/news/stories/2008/03/23/2197001.htm>

Algae may Help Coral Survive Warming Waters

Researchers from the Australian Institute of Marine Science may have found an answer to why some corals continue to thrive in warmer waters when others die. The researchers tagged and analysed about 480 coral colonies in the Keppel Islands of the Great Barrier Reef and found that approximately 94% of them contained a heat-sensitive strain of algae. After a bleaching event in 2006, those corals that survived were dominated instead by a heat-tolerant algae strain. The Institute's Ray Berkelmans said "With the dominant [heat-sensitive] algae being expelled, the more heat-tolerant algae had the chance to reoccupy the space. And as the coral recovers, the previously low-density algae became more dominant." Read the full news story at:

<http://www.abc.net.au/news/stories/2008/03/20/2196188.htm>

South Australian Scientists Join Forces to Solve Seagrass Mystery

In 2001, an investigation was initiated into the loss of more than 5000 hectares of shallow sub-tidal seagrass off the SA coast since the 1930s. The work, co-ordinated by CSIRO involved a wide range of stakeholders and research organisations. Seven years on, the study has found that many years of near-continuous inputs of nutrient-rich, turbid and coloured water and wastewater have resulted in significant changes to and degradation of Adelaide's coastal marine environment. The Adelaide Coastal Waters Study Director, David Fox says: "Seagrass meadows are primary producers...and they provide natural habitat for many species of fish, crustaceans and other marine animals. Taking the seagrasses out of the system causes a 'domino effect', where the seafloor becomes less stable and hence promotes a further loss." The study found that water quality improvement plans over the past 10 years, coupled with reduced volumes of discharge have made a positive difference. Read the CSIRO media release at: <http://www.csiro.au/news/SeagrassMystery.html>

Acid Oceans Could Endanger One-third of Marine Life

Recent research into corals indicates that the ocean has become more acidic over the past fifty years. This acidification is taking place over decades now, rather than centuries as originally predicted and it is happening faster in the cooler waters of the Southern Ocean than in the tropics. It is not only coral reefs that are affected – a large portion of plankton in the Southern Ocean, the coccolithophorids, are also affected. These plankton drive ocean productivity, supporting directly or indirectly krill, whales, tuna and fisheries. They also play a vital role in removing carbon dioxide from the atmosphere. Read the full story at:

<http://www.sciencedaily.com/releases/2007/10/071017102133.htm>

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OTHER BIODIVERSITY NEWS

Biodiversity Management Plans in the North East of NSW

By Andrew McIntyre

During the last three years the Coffs Harbour Department of Environment and Climate Change

office, which includes the North East Branch Biodiversity Conservation Section has been preparing four Biodiversity Management Plans (BMPs) to provide strategies for the targeted implementation of actions to address threats to biodiversity. The Lord Howe Island BMP was adopted by the NSW and Australian Governments in late 2007. The plan meets the Recovery Plan requirements for multiple species, negating the need to produce multiple individual Recovery Plans, with a large number of significant species also addressed by this plan. The total cost of implementing the recovery actions will be nearly \$10 million over the ten-year period covered by this plan. The Border Ranges Rainforest BMP, covering Rainforests within the McPherson Range area of the NSW and QLD border, has been prepared in conjunction with the Queensland Environment Protection Agency. The Plan has recently been peer reviewed and is expected to go on public exhibition later this year. The Central Coast Pilot BMP, covering Gosford, Lake Macquarie and Wyong Shires, and is also expected to go on public exhibition later this year. Planning has recently commenced on the Northern Rivers Regional BMP which covers the Northern Rivers CMA region. The Plan will address those species, populations and communities not covered by the Border Ranges Rainforest BMP. It is expected that the draft plan will be ready for public exhibition early next year. All of the BMPS provide threats-based and spatially hierarchical actions and have utilised the Biodiversity Forecasting Toolkit (BFT) which considers both public and private lands in a whole-of-landscape approach to biodiversity conservation planning. The BFT has been designed to consider the contributions, both positive and negative, that multiple types of land use and management make to maintenance of biodiversity across a landscape. The approach seeks to predict outcomes for biodiversity, under alternate regional scenarios of land use and/or management. For further information on the BFT, visit: http://www.planning.nsw.gov.au/plansforaction/pdf/cca11_131106v3.pdf or obtain a copy of the full report at: <http://bioforecasting.elementfx.com/11BiodiversityFT.pdf>.

Climate Change Threatens Threatened Species

A new report commissioned by the Threatened Species Network and undertaken by Leslie Hughes from Macquarie University has found that even a small rise in temperature could have a dramatic effect on Australia's native species. The report states that the threat posed by invasive species could increase with climate change with direct repercussions for species like Bilbies and Rock Wallabies. Weeds and pest animals are often favoured by changing conditions as they can colonise new habitats rapidly. Changes in vegetation cover and bushfire intensity and frequency could also pose threats. Although there are still many unknowns as to how species will be impacted by climate change, there are already apparent consequences for species like marine turtles. Turtle sex is determined by the temperature of the nesting site and as the temperature at these beaches increases, more females are being produced, skewing the sex ratio. Read the full report at: <http://wwf.org.au/ourwork/species/tsn/publications/>

Proposed Development at Significant Site in Southern Moonee Forest

Residents of Moonee, north of Coffs Harbour rallied in February this year to urge the NSW Department of Planning to reject a development proposal for a beach-side estate in a forested area south of Moonee. Over 300 residents attended the rally and ecologist Mark Graham said they were opposing the development on several fronts but particularly because of the significant nature of the area. "It is quite literally the single most environmentally significant landholding on the entire north coast with 21 threatened species and eight Endangered Ecological Communities." See the news story at: <http://www.abc.net.au/news/stories/2006/02/06/1563315.htm>

Caring for Country

The federal government plans to invest \$2.25 billion over five years on a new program to restore the health of Australia's environment and build on improved land management practices. The *Caring for our Country* program will deliver funding to local communities and will invest in projects concerned with six national priorities including biodiversity, national reserve systems, coasts and aquatic habitats, sustainable farm practices and more. Read the media release at: <http://www.environment.gov.au/minister/garrett/2008/pubs/mr20080314.pdf>

\$180 million to go to Nature Reserves

The Federal Government has committed to allocating \$180 million towards expanding national parks and reserves through partnerships with landholders and conservation groups. Federal

Environment Minister, Peter Garrett said: “[The funding] means we’ll have a much better protection of the biodiversity that’s in our parks and reserves which is so necessary in the face of climate change...It recognises what scientists, conservationists, park managers, farmers and Aboriginal people have been saying to us for some time.” New areas of reserve will be added through acquisition or agreements with landholders committed to preserving bushland. The commitment is a four- to five-fold increase in federal spending. For more, see the news story at: <http://news.smh.com.au/govt-to-pump-180m-into-nature-reserves/20080331-22n1.html>

Biodiversity Hotspot Program to be Abandoned

The Federal Government’s Maintaining Australia’s Biodiversity Hotspot program aims to improve the conservation of biodiversity hotspots on private and leasehold land by enhancing active conservation management and protecting existing ecosystems as habitat for native plants and animals. The program was due to wind-up at the end of June 2008 but the Government is abandoning the program with \$6 million unspent because it was difficult to find people willing to sell their properties. Greens Senator, Rachel Siewert has condemned the decision saying “I cannot believe that the Department of the Environment, Water, Heritage and the Arts couldn’t spend this money – when there are so many opportunities to buy back some stunning private and leasehold land. The Department simply didn’t look hard enough”.

Australia joins the *International Barcode of Life* Project

Taken from: <http://www.amonline.net.au/display.cfm?id=2828> with permission from R. Hancock

The Australian Museum, NSW DPI and NSW Botanic Gardens Trust have joined forces with the Biodiversity Institute of Ontario and Ontario Genomics Institute in Canada in an ambitious project to create a database of DNA barcodes of 500,000 species (5 million specimens) within five years. The organisations signed a Memorandum of Understanding for the International Barcode of Life (*iBOL*) Project at the Australian Museum on 18th February 2008 at an event attended by DNA barcoding participants from Australia and Canada. The Australian Museum will coordinate Australia’s involvement in this project through the Australian Barcode of Life Steering Committee.

Atlas of Living Australia

The CSIRO is co-ordinating the task of building an online encyclopaedia of Australian life. The project is called the Atlas of Living Australia (ALA) and is planning to pull together information held in biological collections around Australia including Museums, Herbaria, State Departments, Universities and microbial collections. The Chair of the ALA Management Committee and Group Executive CSIRO, Joanne Daly says: “This single portal access to biological information will support decision making on issues such as biosecurity, global change management and conservation and underpin research in these areas.” The National Collaborative Research Infrastructure Strategy will provide funding over five years to support the establishment of the ALA. See full media release at:

<http://www.csiro.au/news/OnlineEncyclopaediaOfAussieLife.html>

Biodiversity Research Appointment at the Australian Museum

The Australian Museum has appointed Nathan Lo as Biodiversity Research Initiative Leader. His role will be to build a strategic research initiative focusing on Australian biodiversity, including the assessment of responses to environmental change. Lo is an evolutionary biologist specialising in the biodiversity and evolution of termites, cockroaches and symbionts of arthropods. Read the full profile at: <http://www.amonline.net.au/display.cfm?id=2825>

Cities – the ‘New’ Ecosystems?

A paper in the February 2008 issue of *Science* has outlined how urban environments act as microcosms of the challenges faced globally. “As ecologists, the natural environment has traditionally been our main concern, but cities affect and are affected by changes in climate, land use, water and biodiversity,” says CSIRO’s Xuemei Bai, co-author of the paper. “Because cities are largely designed ecosystems, we have an opportunity to use ecological principles in creating urban living and working spaces, housing developments, open spaces and aquatic environments that can sustain biodiversity and ecosystem function while also providing important ecosystem services on which the city’s population depends.” Read the CSIRO media

CONFERENCES & WORKSHOPS

Australian Network for Plant Conservation Inc (ANPC) - 7th National Conference

“Our declining flora - tackling the threats”. Don't miss this national conference on threatening processes in plant conservation. Mon 21– Thurs 24 April 2008 at 'Winbourne' Edmund Rice Retreat & Conference Centre, 1315 Mulgoa Road, Mulgoa, NSW (near Penrith, western Sydney). A stimulating program will examine threatening processes and their management at the species, plant community and landscape levels. Scientists, conservation managers, on-ground practitioners and community groups are coming together to focus on threatening processes and effective responses. More information, program, registration: <http://www.anpc.asn.au/conferences.html> or contact the ANPC office (anpc@anpc.asn.au; ph: 02-6250 9509). DON'T MISS OUT - REGISTER NOW!

Hunter Wetlands Centre School Holiday Activity Program

15-26th April 2008 at the Hunter Wetlands Centre, off the roundabout, Sandgate road, Shortland. Activities include “Wetland Turtles” for children 4-7 years; “Wetland Rangers” for children 7-12 years, and Canoeing Adventures where adults get half price entry and children under 12 must be accompanied by an adult. Bookings are essential. Contact the Ecotourism Manager Loraine Dartnell on ph (02) 4951 6466 or mob 0423 114 029

Wolli Creek Regional Park Site Tour

Wed 23rd April 2008, 1pm-3pm. Meet at the corner of Hartill-Law Ave and Bray Ave, Earlwood, which is a short walk from Bardwell Park station. Bring closed shoes, hat, water, raincoat, jumper. There is no cost associated with this event. RSVP Paul Ibbetson, DECC, ph (02) 9337 7023, mobile 0438 274 749 or email ibb56@yahoo.com.au

Tree-planting for Regent Honeyeaters in the Capertee Valley

Sat 3rd- Sun 4th May 2008. The next tree-planting for the Regent Honeyeater in the Capertee Valley will be held on the 3rd & 4th of May. Spend a weekend in spectacular surroundings while restoring habitat for a threatened species. For more information, and a registration form, please contact Tiffany Mason on (02) 6350 3115 or e-mail: Tiffany.Mason@cma.nsw.gov.au.

Community Biodiversity Survey – Mid North Coast

15th – 18th May 2008, various sites at South West Rocks about 40km from Kempsey. We are looking for volunteer participants to join with expert team leaders and community members to survey botany, mammals, birds, invertebrates and herpetology (frogs and reptiles). No experience is necessary and all are welcome. Please contact Amanda or Kate on (02) 9299 0000, email nkassistant@naturekeepers.org.au or visit the website at www.naturekeepers.org.au for more information.

16th Australian Weeds Conference

18-22nd May 2008, Cairns Convention Centre, QLD. “Weed Management 2008 – Hot Topics in the Tropics. Hosted by The Weed Society of Queensland Inc. To find out more information and to register, visit <http://www.16awc.com.au/>

Birds Australia Conservation Forum

24th May 2008. Birds Australia Conservation Forum & official opening of the Birds Australia Discovery Centre. Newington Armory, Sydney Olympic Park NSW. For registration, directions and transport information, contact Birds Australia Southern NSW & ACT (BASNA) on ph: (02) 9647 1033 email: basna@birdsaustralia.com.au

14th Australasian Vertebrate Pest Conference

10-13th June 2008, Skycity, Darwin NT. This conference is held triennially and is the 14th in a series recommended by the Vertebrate Pests Committee (VPC). The VPC has just released its Australian Pest Animal Strategy which will provide a national framework for the management of pest animals for the next five years. For more information about the conference, visit <http://www.abcon.biz/vertebrate.html>

Australasian Raptor Association National Conference

30-31st August 2008. Novotel Pacific Bay Resort, Coffs Harbour NSW. Theme: Conserving birds of prey in a changing environment. Abstracts for formal presentation and offers to run informal classes or demonstrations should be submitted by 30th June 2008. Please send abstracts and offers to: Rod Kavanagh at nsw.rep@ausraptor.org.au or ph (02) 9872 0160 or post to:

NSW Department of Primary Industries,
Forest Science Centre,
PO Box 100,
Beecroft NSW 2119.

Conference registration payments should be sent to:
ARA National Conference, c/- Amy Butcher
Birds Australia, Supporter Services, Suite 2-05
60 Leicester St, Carlton VIC 3053

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GRANTS & PRIZES

The Australian Museum Chadwick Biodiversity Fellowship

The Australian Museum is offering a one year fellowship to help a recent PhD graduate establish a career in biodiversity research. The Chadwick Biodiversity Fellowship provides the opportunity for students who have recently completed their PhD to publish papers from their thesis and apply for grants. The recipient will also be encouraged to undertake further original research and participate in relevant teaching opportunities. The fellowship will facilitate networking and collaboration with senior research scientists at the Australian Museum and other experts in the field. The fellowship will provide a twelve month employment contract at the level of Scientific Officer Grade 1.1. The Museum will provide additional support such as assistance with relocation costs, office and lab support and a modest operating budget for research expenses. Further information on the Chadwick Biodiversity Fellowship and other fellowships and postgraduate awards for 2008-09 will be made available shortly on the Australian Museum website at: <http://www.amonline.net.au/awards/index.htm> for fellowships; <http://www.amonline.net.au/awards/pginfo.htm> for postgraduate awards.

The Nature Conservancy Young Scientist Grants – Protecting Biodiversity

The Nature Conservancy has donated more than \$20,000,000 to protect Australian biodiversity but the organisation says there is no point protecting land if there aren't scientists to work on it. Therefore, the organisation is offering \$100,000 in research grants for young scientists who stay in the country. To hear the story on Radio National, visit:

<http://www.abc.net.au/rn/breakfast/stories/2008/2167477.htm>. To get an application, contact Kerrie Wilson at email: kwillson@tnc.org

The Australian Museum Eureka Prizes

Presented annually by the Australian Museum, the Australian Museum Eureka Prizes are Australia's most comprehensive science awards and the largest award scheme for research into critical environmental sustainability issues facing the country. Entries and nominations are now invited for \$60,000 in prizes dealing with environmental issues. Categories include: Young Leaders in Environmental Issues and Climate Change, Environmental Research, Environmental Sustainability Education, Innovative Solutions to Climate Change, Water Research and Innovation, Environmental Journalism. Entries close **2 May 2008**. For further information on the prizes, finalists and winners from previous years, and how to enter, go to <http://www.australianmuseum.net.au/eureka> or email eureka@austmus.gov.au

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RESOURCES

Native Plant or Weed?

This new publication, "Native Plant or Weed? Volume 2" is a field guide to help people pick the difference between native plants and weeds. This book includes full-colour side by side photos of weed and native "look alikes" with explanatory notes. The book covers 62 plants common to coastal and high rainfall areas. This 76 page book has been produced by NSW DPI. It costs \$24 (including GST) and is available by calling 1800 025520.

Coastal Councils Planning for Climate Change – Report

The Sydney Coastal Councils Group (SCCG) have prepared a report titled, *Coastal Councils Planning for Climate Change: An assessment of Australian and NSW legislation and government policy provisions in relation to climate change relevant to regional and metropolitan NSW coastal councils*. To request a copy of the report, please email: info@sydnecoastalcouncils.com.au

Wildlife of the Box-Ironbark Country

"The forests and woodlands of Victoria's Box-Ironbark Region are one of the most important areas of animal diversity and significance in southern Australia. They provide critical habitat for a diverse array of woodland-dependent animals, including many threatened species."

(Description taken from: <http://www.publish.csiro.au/pid/4856.htm>). This book covers mammals, birds, reptiles and frogs that occur in the area, including a description of their distribution, status and ecology. A colour photograph and distribution map is included for each species. Find out more from: <http://www.publish.csiro.au/pid/4856.htm>

Woodlands: A Disappearing Landscape

This book explores the diverse array of animals and plants that comprise eastern Australian Woodlands. Woodlands are distinguished from forests by the fact that tree heights are often lower, the usually have a grassy understorey and their canopies do not touch. The biota in these landscapes has been under pressure from grazing and agriculture for the past 200 years and this book aims to encourage understanding and appreciation of woodlands, as a tool for promoting sustainable management and conservation. For more information and purchasing details see: <http://www.publish.csiro.au/pid/4978.htm>

Bowerbirds

This new book by Peter Rowland, with colour photographs and illustrations delves into the unique bower-building behaviour of Bowerbirds. The book condenses the published knowledge acquired by ornithologists and provides detailed accounts of the Australian members of the family, whilst also discussing the New Guinea representatives in general chapters and in a supplemental section. For more information and purchasing details, go to: <http://www.publish.csiro.au/pid/5832.htm>

Fungi of Australia: the Smut Fungi

Smut fungi are parasites of mainly flowering plants and in Australia, these fungi include 296 species in 43 genera. These fungi have been responsible for devastating crop losses in the past although the development of disease resistant varieties and the introduction of fungicidal seed treatments have lessened their impact. However some smuts remain serious pathogens of cereal crops elsewhere in the world, highlighting the importance of accurate identification. This volume is the first overview of the Australian smut fungi in almost 100 years and includes identification keys, descriptions and an accompanying CD with interactive key and distribution maps. To find out more and for purchasing details, see: <http://www.publish.csiro.au/pid/5729.htm>

Corals of the World

This three-volume set is an easy to use reference work for coral biologists and non-specialists. It contains colour images, highlighting the natural beauty of the corals and noting their conservation value around the world. For more information and purchasing details, go to:

BRN INFORMATION

BRN website

<http://www.environment.nsw.gov.au/biodiversity/biodiversityresearch.htm>

BRN newsletters

<http://www.environment.nsw.gov.au/biodiversity/newsletters.htm>

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