Feral Herald

Newsletter of the Invasive Species Council, Australia
working to stop further invasions

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Contents

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Gamba Grass – A Looming National Disaster?

Which weed is Australia's worst?
A plant nominated for this dubious honour on ABC radio in July was gamba grass (*Andropogon gayanus*). On an episode of *Background Briefing* dedicated to Australia's weed problems, the chief executive of the Weeds CRC, Rachel McFadyen, and ISC project officer Tim Low both nominated this grass as the weed to fear most.

"Well it's the worst weed I know of," said Rachel, "because when it invades into a woodland grass savanna, it takes out all the native grasses and herbs, and then when it burns, and you're talking about 3 to 4 metre tall grass, when it burns, it kills the trees as well."

Tim's language was perhaps even stronger: "It is just the most frightening weed I have ever come across in my life."

So what is gamba grass?

Growing up to 4.75 metres tall, it is a giant African grass imported by agronomists as fodder. Gamba grass produces a lot of food for a cow, but if it is not eaten it dries into vast loads of fuel for a fire. Gamba grass fires can be eight times as hot as natural fires in northern Australia, producing flames that reach into the canopy. Trees subjected to several gamba grass fires soon die. Gamba grass is spreading quickly in the Darwin region, and trees are dying, leading to very dire predictions about the future of northern Australia.

continued page 2

The Queensland government assessed the weed threat posed by this grass in 2005 and concluded:
"If large areas of northern Australia become dominated by gamba grass, the associated fire regime is predicted to transform Australia's eucalypt-dominated tropical woodlands into tree-free grasslands."

That report recommended an end to further sale of gamba seeds, an end to further plantings, and the eradication of isolated infestations. But nearly two years have passed and no action has been taken. More than 5 tonnes of gamba grass seed are sold in Queensland each year, but last year's sales reportedly rose to 11 tonnes.

On *Background Briefing*, both Rachel and Tim criticised the Queensland Government for not acting on the recommendations of its report.
"I think it's a disgrace,' said Rachel. 'I think that in 50 years time, people are going to be spending big money to get rid of gamba grass which should never have been allowed to be planted in the first place. They've known for at least two to three years that it's a very serious weed, they should have stopped the sale and planting of it then and there."

According to Di Martin, the journalist responsible for the *Background Briefing* program, the 2005 gamba report "wasn't accepted because of grazier opposition". When she asked Biosecurity Queensland officer Bruce Wilson why the report had not yet been adopted he had this to say:
"We received some valuable comments then about obtaining additional information particularly on its value as a pasture. So it has been a rather lengthy process in terms of pulling together this additional information."

Biosecurity Queensland will soon forward a recommendation about gamba grass to the Minister for Primary Industries. We have been told that there is disagreement within the department about the approach that should be taken. Gamba grass was strongly promoted on the DPI website a few years ago.

On 3 August the *Courier Mail* ran a prominent article about gamba grass after an approach from Tim.

"An African grass with the potential to turn vast areas of Queensland eucalypt country into treeless plains is on the verge of taking over large slabs of Queensland," began the article by Brian Williams. The article included several comments from Tim:

"Invasive Species Council spokesman Tim Low said the only other issue with as much potential to damage Queensland was climate change.

"Gamba is looking like a nightmare," Mr Low said. "Because it grows so high (4.75m) it kills gum trees. If allowed to get away, vast areas of northern Australia would be converted to treeless plains."

We question whether gamba grass is of real value to the grazing industry. The Gamba Management Guide produced by the Northern Territory government contains several warnings about the problems it poses if not carefully managed. For example:

"Once the grass becomes tall, mature and coarse at the end of the wet season, cattle tend to leave it and concentrate on green shoots from smaller clumps. Problems with mustering can be experienced as cattle and buffalo quickly become 'rogues' if the grass is allowed to grow taller than their heads."

An Agnote on gamba grass published by the Department of Primary Industries, Fisheries and Mines in November 2006 states: "DPIFM does not support new sowings of gamba grass."

It is not highly valued by the pastoral industry in the Northern Territory or in Queensland, with some farmers regretting having sown it. The mature plants are largely inedible. The fierce fires it fuels are a major concern, with two houses destroyed by a recent gamba grass fire south of Darwin.

In both the Northern Territory and Queensland, many calls have come from within government and without to declare gamba grass a weed, so that further plantings of this dangerous grass can be halted. ISC has been monitoring the situation for some time, in the belief that a declaration in Queensland was imminent, but now we fear that our optimism was misplaced. What we do know is that the Queensland government will make a decision in coming weeks. We are consulting with Biosecurity Queensland to seek a good outcome.

For the sake of Australia's trees and other wildlife, we urge everyone to write to the Queensland Minister for Primary Industries, Mr Tim Mulherin, calling on the government to immediately ban further seed sales and plantings of gamba grass. This can be achieved by issuing an emergency pest notice under the Land Protection Act. Emails can be sent to DPI@ministerial.qld.gov.au and letters to

The Honourable Tim Mulherin
Minister for Primary Industries and Fisheries
GPO Box 46
BRISBANE QLD 4001

The stakes could not be higher. With gamba grass we are gambling on the future of the savanna woodlands of northern Australia and all the wildlife they support. Bioclimatic modelling shows that gamba grass could establish as far south as northern New South Wales - and that's before you take into account climate change, which will benefit this tropical grass. Gamba grass will also benefit from the increased frequency of fires predicted under climate change. The trees it destroys add to carbon dioxide emissions, which in turn promote more heat and more fires, and more gamba grass. If you only write one letter this year, let it be about gamba grass.

For more about gamba grass, visit these sites:

The Courier Mail:
http://www.news.com.au/couriermail/story/0,23739,22180906-3102,00.html

Background Briefing:
http://www.abc.net.au/rn/backgroundbriefing/stories/2007/1962328.htm

Gamba grass on Catalyst:
http://www.abc.net.au/catalyst/stories/s1199756.htm

Gamba grass on Earthbeat:
http://www.abc.net.au/rn/science/earth/stories/s41395.htm

The Gamba Action Group N.T.
http://www.gamba.org.au/

The Tropical Savannas CRC:
http://savanna.ntu.edu.au/education/natalie_rossiter_phd.html

The National Weeds Strategy website:
www.weeds.org.au/cgi-bin/weedident.cgi?tpl=plant.tpl&ibra=all&card=G04

The Queensland Government's risk assessment:
http://www.cook.qld.gov.au/news/2006/Gamba%20Grass.pdf

The Northern Territory Fire and Rescue Service:
http://www.drytropics.org.au/weeds_mission_gamba_fire.htm

And finally an agronomist's perspective:
http://www.tropicalgrasslands.asn.au/pastures/gamba_grass.htm

The Green Bulldozer

"Here is a weed that will clear trees without bulldozers, you should be really worried about this grass."

ISC project officer Tim Low, speaking about gamba grass on Background Briefing

ISC Speaks in Sydney

During a seminar on environmental weeds in Sydney on 13 July, ISC project officer Tim Low spoke about the ISC campaigns against gamba grass and weedy biofuels.

There were groans from the audience when Tim screened an image of giant reed (*Arundo donax*), a weedy grass proposed as a biofuel in Australia. Giant reed is such a serious weed along some river systems near Sydney that no one needed convincing about its unsuitability as a crop.

The seminar was run by The Weed Society of New South Wales.

Annual General Meeting

Where:
Space 39, Level 2, 39 Little Collins Street , Melbourne.

When:
26 September at 6:30 pm

The meeting will commence at 6:30pm, to be followed at 7.30 by a talk by ISC project officer, Tim Low, about climate change and Invasive species. Leading climate biologists predict that invasive pests will proliferate under climate change.

In 2006, as a member of the federal environment minister's advisory committee, Tim ran a workshop on climate change and invasive species, bringing leading experts together in Canberra. He has now written a major report for the federal government on this topic. Come and hear Tim explain what the future may bring.

Greenhouse 2007

ISC will be represented at Greenhouse 2007, a major climate change conference in Sydney on 2-5 October. ISC project officer Tim Low will help man a stall with the Weeds CRC, to push the message that climate change will worsen Australia's weed problems. At the conference, ISC will launch its report on weedy biofuels. To read more about Greenhouse 2007, visit;

http://www.greenhouse2007.com/

Crazy Ant Progress

In February, ISC went to the *Courier Mail* to criticise inadequacies in the Queensland Government's crazy ant (*Anoplolepis gracilipes*) eradication campaign (see *Feral Herald* 1 [1] April 2007). The core of our complaint was that the work is so poorly funded that no trace-back work is going on. To quote the *Courier Mail*:

'Invasive Species Council spokesman Tim Low said yesterday virtually all of the ant invasions could be traced to timber supplies from Papua New Guinea or Southeast Asia.

'He said it was appalling that no surveillance of timber yards or investigations into their suppliers was being undertaken by the State Government, given the resources being poured into fire ants.'

This led to an appearance by Tim on Channel 10 news the following night. In a subsequent meeting with Biosecurity Queensland, Tim reiterated these concerns, which led to a recent meeting with the unit responsible for ant eradications in Queensland. At this meeting Tim outlined his concerns in detail, and received an assurance from Biosecurity Queensland that more resources would be found for crazy ant control. We thank Biosecurity Queensland for listening to our concerns, and look forward to liasing with them about the future control work.

One reason why crazy ants receive so little funding - compared with fire ants and electric ants - is that the worst threat they pose is to the environment, rather than people or economic interests. On Christmas Island, which was largely over-run by these ants, they devoured tens of millions of red land crabs.

The Christmas Island ant population was reduced by a vast baiting program several years ago, but their numbers are now rebounding, and although some ant control work continued, its funding was not secure.

But the recent federal budget contained good news for Christmas Island. The following statement appeared in the budget papers:

"The Government will provide $4.0 million over four years to expand control efforts for the Yellow Crazy Ant infestation on Christmas Island.

'The programme will provide funding for research into the development of a biological control agent as a potential longer-term control measure, while continuing baiting operations to bring down the levels of the infestation.'

The money will be spent over four years. We congratulate the Federal Government for funding this important work. The biocontrol program will focus on testing a parasite that attacks the introduced scale insects on the island. The sugary exudates secreted by these sap-sucking bugs are an important food source for the ants, and if scale numbers can be reduced, ant numbers will also fall.

In a separate move, the Federal Government has refused an application by the mining company on Christmas Island to fell more rainforest to mine phosphate. Many of the areas mined in the past have been invaded by weeds such as leucaena and tecoma. They cannot be returned to rainforest because the soil that remains after mining is inadequate. Christmas Island contains far more endemic animal species than any other area of similar size in Australia, and its future is now on a much better footing.

For the budget announcement about crazy ants, see http://www.budget.gov.au/2007-08/bp2/html/expense-11.htm)

President Moves On

Barry Traill, long-serving president of ISC, has resigned after five years at the helm. Barry has left with reluctance to devote himself fully to his new role running the Wild Australia Program with the American Pew Environment Group. The program is a three-year $14 million project to secure protection for large wild areas.

As the National Woodlands Campaigner for the Wilderness Society, Barry played a key role in securing tree-clearing laws in Queensland and New South Wales, and in winning protection for the box-ironbark woodlands in Victoria. Although campaigning for habitat protection was his day job, Barry realised that habitat protection on its own would not protect wildlife if it faced threats from invasive species. He was the driving force behind the formation of ISC in 2002 and he became its first president. He brought considerable campaigning skills to the position, along with expertise as a biologist and naturalist. Barry will remain a member of ISC, but as a president he will be sorely missed.

The ISC council has appointed Steve Mathews as interim replacement president. Steve was also one of the founders of ISC, serving on its council from 2002 til 2004. Steve has long been active in conservation circles in Melbourne, especially as a board member of the Mullum Trust, an environmental philanthropic foundation. We welcome Steve to the role.

Introducing Steve Mathews

Hi everyone.

I have taken on the role of interim president of ISC after Barry Traill's move to the Pew Environment Group. I have had an interest in invasives for many years – after observing the devastating impact of radiata pine invasion on bushland at our rural home in Melbourne's east many years ago, particularly on the habitat of my then-favoured creatures, the bluetongue lizard. Since then I have worked in a variety of ways for the environment, including looking at methods to reduce the impact of invasive plants and domestic pets running amok in urban fringe developments, through use of planning controls.

There is no doubt that the problem of invasives is one of the top threats to biodiversity in Australia, and without concerted action we will lose a huge amount of what we value about our natural environment. There is still remarkably little policy and regulatory recognition of the breadth, complexity and seriousness of the problem.

Since its inception the activities of ISC have helped raise awareness of a number of specific invasive threats, and provided direction and advice on appropriate preventative actions. It has also commented and worked towards action on a range of more general weed and feral issues. With a strong membership base we can continue and expand this work. I hope you will renew your membership.

Looking forward to seeing you at the upcoming AGM!

Warning about Biofuels

With climate change dominating the news, potential biofuel crops (plants grown to produce petroleum substitutes) are attracting much interest, but ISC is finding that many of these are weeds.

We were alerted to this issue two years ago when an oil-processing company in Queensland called on farmers to grow jatropha (*Jatropha curcas*), a major world weed. ISC wrote to the Queensland government requesting this plant be declared a weed in Queensland, as it has been in Western Australia and the Northern Territory (see *Feral Herald* 1[13]). An assessment of this plant by the Queensland government is now almost complete.

After a review of journal articles and searches over the internet in June, ISC drew up a list of weedy potential biofuel crops and put out a press release warning about these plants (see page 6). The press release was published online in Farmonlinea and in The North Queensland Register, and was also published over Enviroweeds and Aliens-1, the Australian and global list-servers devoted to invasive species.

Our press release attracted responses from around the world. The Ecological Society of the Philippines wrote requesting more information about jatropha, because of the massive plantings now underway in that country. ISC forwarded a risk assessment on this plant prepared by the Western Australian government.

Another enquiry came from Silvia Ziller in Brazil, who is working for the Global Invasive Species Program to provide the World Bank with a list of weedy biofuels. ISC provided Silvia with additional plant species and additional records of weediness, resulting in substantial additions to the report. It is a measure of ISC's professional stature that were able to contribute to policy formulation by the World Bank.

Another email expressing interest came from The California Invasive Plant Council. In Australia, ISC was approached by a public organisation that is trailing giant reed (*Arundo donax*), a plant with a global reputation as a very serious weed. ISC sent a series of articles and expert opinions to the organisation, which is now reconsidering its involvement with this high-risk plant.

As anounced in the press release, ISC is working towards the preparation of a detailed report on risky biofuels. Given the widespread interest in our press release, including international requests for further information, we expect the report to be widely read, and to fill an important gap in the burgeoning climate change literature. In the rush to respond to climate change it is important that any new initiatives are properly considered to ensure they do not add to our environmental woes.

The Weedy Truth about Biofuels

This is the recent ISC press release, with scientific names of the plants inserted

With climate change so much in the news, biofuel crops are attracting interest, but initial investigations by the Invasive Species Council have found that many of these are potential major weeds- putting the economy and the environment at risk.

"We have found that some of the plants being promoted by biofuel organisations in Australia are serious weeds," said ISC spokesman Tim Low.

"For example a biodiesel company in Queensland has called on farmers to grow jatropha (*Jatropha curcas*, also called physic nut), an American plant that is banned in Western Australia and the Northern Territory because of its weediness.

"Jatropha is also closely related to bellyache bush – one of the worst weeds of grazing lands in northern Australia - and like bellyache bush it is poisonous to livestock. It could be a disaster if this plant was deliberately put in the ground as a crop in Australia, " said Tim Low.

The ISC has found that other known major weeds touted as biofuel crops include Chinese tallow tree (*Triadica sebifera*), castor oil plant (*Ricinis communis*), reed canary grass (*Phalaris arundinacea*), giant reed (*Arundo donax*) and Chinee apple (*Zizyphus mauritianus*). For example Chinese tallow tree is one of America's worst weeds, and it was recently declared a noxious weed in northern New South Wales because it is invading land so rapidly.

In September last year, six scientists published an article in the prestigious journal *Science* warning about the weed risk posed by biofuel crops.

In the United States, corn is grown as a biofuel, but the costs of cultivation are so high that without subsidies it is not a viable alternative to petroleum. The search is on for hardy low-maintenance biofuel crops, but unfortunately some of those proposed are well known weeds.

This poses a potential major risk to Australian agriculture and the Australian environment. Due to the risk the Invasive Species Council is preparing a comprehensive report on the weed risk posed by some biofuel plants.

Victoria Naturally

ISC is a member of the Victoria Naturally Alliance, a grouping of eight peak environment groups working to reverse Victoria's biodiversity crisis. Victoria Naturally is led by the Victorian National Parks Association, and includes the Australian Conservation Foundation, The Wilderness Society, Environment Victoria, Trust for Nature, Greening Australia Victoria, and Bush Heritage Australia as well as the Invasive Species Council.

In June, the alliance made a major submission to the Land and Biodiversity White Paper. The White Paper process, initiated by the Victorian Government, gives Victorians an opportunity to help shape a biodiversity strategy for the state at a time of climate change. ISC's input into the submission ensured that invasive species received adequate recognition as a threat to biodiversity requiring sound policy responses. The submission mentions, for example, the spectre of major new pests such as fire ants, eucalyptus rust and rock snot (didymo).

Few people have heard of rock snot (see the last newsletter) but that is the point – that Victoria's biodiversity faces threats from invasive organisms that hardly anyone has heard of, much less prepared against.

You can find the Victoria Naturally Alliance submission at:

http://www.vnpa.org.au/level3.php?page_ID=9&page_level2_ID=9&3rd_level_page_ID=191

Here's a quote:
"Weed and pest invasions represent another dynamic process. Weedy garden plants are continually escaping from cultivation into bushland, where they displace native vegetation. Feral deer are expanding their ranges in Victoria, and the invasive orange pore fungus has recently appeared in Melbourne reserves. New pests can be expected in future."

The Victorian Government's white paper process is explained at:

http://www.dse.vic.gov.au/CA256F310024B628/0/3BEF611031D56535CA2572C3001DE765/$File/Consultation+doc+final+20070426.pdf

Invasive Fungus in eastern states

Robert Bender

In the mid-1960s a new invader, orange ping pong bats, or orange pore fungus (*Favolaschia calocera*), was discovered in the north island of New Zealand. It seems to be native to Madagascar and Kenya, plus a crescent of south-Asia including Thailand and western China. It has slowly spread all over the North Island and moved into the northern quarter of the South Island, adapting to living on the wood of New Zealand tree species and is now known from over 200 sites. In the 1990s it was found on Norfolk Island, almost halfway to Australia, and in 2004 it appeared in a north-eastern suburb of Melbourne, Ivanhoe, and in nearby suburbs, then soon after in an outer south-eastern suburb, Berwick. It has now been found at Binna Burra, on the NSW/Qld border, and is persisting in all sites. So it is settling into Australia at several locations and no doubt many others where nobody has spotted it yet. Nothing is known about its impacts on the environment.

Invasive fungi are not a new phenomenon, as the Fly Agaric (*Amanita muscaria*) and the Death Cap (*Amanita phalloides*) have long been known to grow beneath pine, fir and oak trees in Australia, and the fly agaric also grows on native beeches (*Nothofagus* species) on the edge of rainforest.

Australia may have more than 10,000 indigenous fungi species. Because they only fruit for a few days or weeks in the rainy season, very little is known about their ecology or distribution.

A national volunteer-supported data collection and mapping scheme, Fungimap, was initiated in 2000 to gather data about, initially 10, then 100, and now 105 species (including the *Favolaschia*), to improve knowledge of geographic range, habitats, and seasonal fruiting patterns. But a much greater effort is needed to get a good grip on invasive species within this very large group of organisms.

The scheme is surviving on small grants and a great deal of volunteer input, and needs a lot more funding if it is to function as a monitoring project to warn of newly arriving invasives.

To learn more about Fungimap visit:

http://www.rbg.vic.gov.au/fungimap_/welcome

New Weed Gallery

The Weeds CRC, Australia's peak weed organisation, has put together an image gallery of some of Australia's worst weed infestations.
To quote the Weeds CRC:
"Seen in combination these striking images provide an immediate visual impact aimed at creating a greater appreciation of the issue, particularly amongst those who might not think of weeds beyond their backyards."

The horror show can be viewed at:
http://www.weeds.crc.org.au/main/image_gallery_index.html

Eucalypt Rust

Eucalypt rust is a South American plant disease that represents a serious threat to eucalypts, paperbarks, and related plants. It often kills young eucalypts in plantations in South America, and in recent years it has spread to Florida and Hawaii.

The next *Feral Herald* will review the threat it poses to Australian ecosystems.

A Focus on Banteng

Tim Low

During May, ISC spokesperson Tim Low appeared on ABC radio's The National Interest to discuss banteng, an Asian cow creating controversy in the Northern Territory, where a large feral population is degrading a national park.

Because Australia lacks any large native mammals comparable to elephants or bison, large feral animals are sometimes romanticised to the point of denying the damage they do to the environment.

The banteng (*Bos banteng*) is one species attracting opposing opinions. It's a species of cow native to thick forest in South East Asia, where it's listed by the IUCN as endangered. In 1849 about 20 domesticated banteng were brought from Bali to Port Essington, the first site of European settlement in the Northern Territory, and allowed to run free when the settlement folded. Their population has grown to at least 6,000, and may number as high as 9,000, all of them found today in Garig Gunak Barlu National Park north east of Darwin.

The damaging impacts of these cattle have long been a source of concern. A CSIRO investigation in the 1970s found widespread evidence of degradation:

"…the sandy plains appear overgrazed and trampled…In areas where these cattle congregate and shelter, ground vegetation is considerably damaged and there is a marked browse line on certain species of trees. The burrows of rodents on the sandy plains are often broken into by the feet of cattle."

The recommendation was made that the banteng be culled, with perhaps 'a small herd of say 100 head' retained for posterity inside a small fenced area. But instead of this a fence was run across the Coburg Peninsula which confines them inside the national park to this day.

In the 1990s, a couple of Northern Territory biologists began pushing the idea that Australia's feral banteng had high conservation value because of the rarity of wild banteng in Asia. The problem with this idea is that Australia's banteng are descended from domesticated livestock, just as Australia's feral cats are descended from pets. Were domesticated animals included in population counts then banteng would not qualify as endangered because more than a million are kept on farms in Indonesia. Banteng are the dominant livestock in Bali and Timor, and large numbers are also kept in Sulawesi and Lombok, and smaller numbers in Java, Sumatra, Borneo and West Malaysia.

In a 2006 journal article, biologist Corey Bradshaw and four co-authors added fuel to this controversy in a paper titled *Conservation value of non-native banteng in northern Australia* by presenting DNA data showing that Australia's domesticated banteng show no signs of prior interbreeding with other cattle species. They went on to claim that the genetic purity of domesticated banteng in Asia is doubtful because of 'indiscriminate crossbreeding' with other cattle species.

This statement conflicts with a previous study by Nijman and 11 co-authors, published in 2003, which found that "Both Madura and Malaysia Bali cattle individuals have a mixed banteng-zebu origin, while no zebu introgression has been found in the individuals from the isle of Bali."

The Balinese are very proud of their banteng and they have long banned the introduction of other cattle breeds. Given the 2003 finding that Bali's banteng show no signs of interbreeding, and the fact that Australia's banteng were imported from Bali, it was not possible that Bradshaw's DNA work would reach any other conclusion. The paper sheds no light on the history of past domestication of Australia's banteng except to show that interbreeding with other species has not occurred. If the same DNA study was conducted on poodles it would show that they are descended entirely from wolves and not from any other species of dog. One may wonder why the study was conducted at all, but the purpose was clear enough: to try to bolster the argument that Australia's banteng have conservation value.

But the Bradshaw paper went much further, arguing that Australia should become an open-range menagerie for all manner of declining beasts. To quote:

"many endangered and critically endangered … species are potential candidates for introduction to Australia because as herbivores, they would not impose any predation pressure on indigenous fauna. Indeed, many arid (e.g., African) and tropical (e.g., African) specialists requiring large areas may be particularly suitable, and these could include the addax (*Addax nasomaculatus*), Walie ibex (*Capra walie*), rhim (*Gazella leptoceros*), hirola (*Damaliscus hunteri*), scimitar-horned oryx (*Oryx dammah*), the Grevy's zebra…"

They went on to list two species of pygmy buffalo, three endangered deer and three pigs. Bradshaw and his colleagues quoted Josh Donlan, an American biologist who has argued for the introduction to North America of elephants, lions, cheetahs and camels to replace analogous species lost during the Pleistocene. Tim Flannery offered a similar idea in *The Future Eaters*, proposing that Komodo dragons - enormous lizards from Indonesia - be introduced to Australia to replace a giant extinct goanna.

One might think that the biologists proposing these introductions were only joking, to make an ecological point, but there's a serious side to all this. The 're-wilding' movement in North America, as it is called, has attracted several advocates hankering for a return to the days when big animals ruled. As for the Bradshaw paper, it cites concerns about climate change as one justification for the 'extreme actions' it proposes.

While there is no risk of the Australian government ever agreeing to the release into Australian reserves of zebras, dwarf buffalo, Javan warty pigs and man-eating lizards, the banteng in Garig Gunak Barlu National Park are a fact of life. On 22 April I appeared on the Radio National Program *The National Interest* to present an alternative view to one expressed by Corey Bradshaw in a previous episode.

Bradshaw wants to see more banteng introduced to the national park to broaden the gene pool, while admitting there is 'almost like a moral dilemna' involved in conserving a foreign species in a national park. I explained to radio host Peter Mares that more banteng would only increase the damage to the park. Bradshaw does not deny that degradation is occurring, but says it is less than that caused by other feral species such as pigs and buffalo.

I said that banteng numbers in the national park should be reduced to less damaging levels. Their densities reach 70 per square kilometre inside monsoon forest, and the head ranger has reported that sick and dying banteng are sometimes encountered at the end of the dry season, suggesting a population that sometimes outstrips its food supply. Starving banteng are sometimes culled.

There is abundant evidence to show that domestic cattle damage native vegetation and promote soil erosion. National parks exist to protect ecosystems from these kinds of degrading influences, and to maintain very high densities of cattle inside a national park is to violate the principle on which they are founded. All species deserve conserving, not just large mammals. To let native plants and small ground-dwelling animals suffer on behalf of an introduced species is to distort the conservation agenda.

During the radio segment I did not propose anything dramatic such as the removal of all the banteng from the park, but if this occurred, the future of the species would not be affected. The situation in Garig Gunak Barlu National Park could be recreated by anyone who obtained another 20 or so Bali banteng and let them multiply in the wild. There is no risk of the hundreds of thousands of banteng in Bali dying out, and while the Balinese maintain their ban on other cattle species there is no risk of genetic introgression. What is at risk right now is the ecological integrity of a national park.

The banteng situation in the Northern Territory deserves more attention, and I would urge those with an interest to read more about them. Articles from both sides of the debate are listed here. How banteng are treated could have repercussions for other feral animals in our national parks.

To hear the ABC interview visit:
http://www.abc.net.au/rn/nationalinterest/stories/2007/1896775.htm

Further Reading

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Support our Work

If you support what we are doing, join the Invasive Species Council or send us a donation. A membership form is provided on the last page. We are only as strong as our support base.

Know Your Ant

With invasive ants emerging as a serious national threat, the capacity of Australians to identify introduced ants can play a vital role in their discovery. But books or other aids to identifying ants are almost nonexistent. It is therefore very pleasing that the Queensland Museum has recently published two guides that help with the identification of the common native and introduced ants around Brisbane. One is *Ants of Brisbane*, a small booklet by museum entomologist Chris Burwell, and the other is a new edition of the popular *Wildlife of Greater Brisbane* book, for the first time containing a section about ants.

Queensland is the key state for invading ants. The climate is ideal, and most serious ant invasions are occurring there: red imported fire ants (*Solenopsis invicta*), electric ants (*Wasmannia auropunctata*) and yellow crazy ants (*Anoplolepis gracilipes*) to name the big three. Members of the public detected incursions of all three species, phoning government agencies when strange ants were found. But no guide has been available until now to help residents identify ants for themselves.

The Fire Ant Centre discouraged residents from trying to identify ants because fire ants are so difficult to identify accurately, but these guidebooks now explain what to look out for. Each publication includes clear photos and detailed descriptions. They will foster a wider interest in ants, encouraging residents to pay more heed to the tiny critters crawling about us.

The guides confirm a point expressed in a previous *Feral Herald*: that many ants have been handed weird names. There is the muscleman tree ant, tufted tyrant ant, southern vampire ant, polymorphic goblin ant, valentine ant, cocktail ant and Gasser's plug-head ant. Goblins, vampires and tyrants? Ant experts have spectacular imaginations.

The Queensland Museum is to be commended for these publications. What we need now are guides to the ants of other regions, especially the tropical and subtropical zones of Australia.

Pest or Guest – The Morals Considered

Pest or Guest is a major new book about Australia's invasive and overabundant animals. Species covered include fire ants, carp, rats, Asian house geckoes, marine pests, cane toads, plus *Homo sapiens* as the ultimate pest. Several chapters in this edited collection are devoted to overabundant native species such as kangaroos, koalas, ibis and marron crayfish. One section is devoted to theoretical issues.

The book is the product of a forum run in Sydney in 2005 by the Royal Zoological Society of New South Wales. The forum was made lively by members of animals' rights groups who tried to monopolise the question and answer sessions by raising concerns about animal cruelty. Many animal rights activitists object to the way in which pest animals are 'demonised' and killed on behalf of native species and human assets.

Peter Banks, one of the organisers of the forum, expressed concerns about their tactics in one contribution to the book, posing the question: 'Is there a net reduction in animal suffering when native species fall victim to alien predators, given that a single feral cat may kill more than 20,000 individual vertebrates in a 7 year lifetime?'

At the recent Animals and Society Conference held in Hobart in July, the difficulty of reconciling conservation with individual animal rights was identified as a major moral issue requiring resolution. A difference between the two events was a lack of obvious animosity at the Hobart conference.

Most of the animal rights advocates in Hobart seemed to accept that the destruction of native wildlife by introduced feral animals is a valid moral concern. By contrast, the activists at the Sydney forum seemed to operate from the premise that harming any feral animal is wrong, irrespective of the harm it may cause to wildlife.

In his chapter in *Pest or Guest*, Peter Banks encourages scientists, land managers and future conference convenors 'to be vigilant against the possible aggressive, standover tactics of the animal rights groups'. A more important goal may be to better present the message that feral animal control can reduce overall animal suffering. In Tasmania, the government has on several occasions eradicated small groups of Indian mynas, thereby preventing these birds from establishing in the state. Had the government not acted, the mynas would have multiplied and taken over the nest holes of native parrots, as they have on the mainland. Traps for capturing and killing Indian mynas are now used on mainland Australia as a way of saving parrot lives. The argument can easily be put that the killing of a few Indian mynas in Tasmania was less cruel than the alternative – the deaths of many young parrots and the ongoing killing of mynas to reduce their environmental impacts.

Pest or Guest: The Zoology of Overabundance. Edited by Daniel Lunney, Peggy Eby, Pat Hutchings and Shelley Burgin. Published by the Royal Zoological Society of New South Wales, Sydney. To purchase a copy, contact the RZS office on 02 9969 7336 or via office@rzsnsw.org.au

Macquarie Island Success

Our congratulations go to WWF for its successful campaign to convince Tasmania to fund its share of the $24.6 million plan to rid Macquarie Island of its rabbits. The damage done by the rabbits, which now number more than 100,000, is appalling, and includes loss of most of the island's vegetation and massive soil erosion.

ISC lent its support to the campaign through our newsletter, and when ISC officer Tim Low spoke out about the destruction, and about Tasmanian government intransigence, during an interview on ABC radio's *The National Interest* in April. The rabbit disaster has been blamed on an earlier eradication campaign that removed feral cats from the island, but Tim pointed out that the rabbits are also benefiting from climate change and a reduced impact of the biocontrol agent myxomatosis.

The plan is to eradicate the island's rabbits, and also its black rats, by 2009.

Asian Honeybees Found

Hives of the dreaded Asian honeybee (*Apis cerana*) have been found at Cairns harbour, and an eradication effort is now underway. Asian honeybees pose a serious threat to the Australian environment because they duplicate the impacts of the European honeybee, which competes for nectar with native birds and insects and takes over nest holes used by marsupials and birds. Unlike the European honeybee, the Asian honeybee will colonise rainforest, although it exploits other habitats as well, including cold temperate zones. Asian honeybees are dreaded by the agriculture industry because they could bring varroa mites - which kill honeybees - into Australia

Aussie Moth Imperils Californian Crops

California is in a flap over a moth from Australia with a penchant for attacking grapes, stone fruit, tomatoes, corn and other crops. The light brown apple moth (*Epiphyas postvittana*) has earned a bad reputation for attacking crops in Australia, Britain and New Zealand. In February it was detected in California, and a major eradication effort was mounted to eradicate them.

If California fails in its war against the moth - and it probably will - it stands to lose more than US$100 million in crop damage and pest control. There are also fears that foreign markets will reject Californian crops. The federal Department of Agriculture has declared quarantine over affected counties, barring the movement of crops or plants around the state without inspections.

The moth infestation has reignited criticisms about the ability of the Department of Homeland Security to do quarantine work, a role it was handed after the terrorist attacks on New York and Washington.

California has a long history of battling against Australian pests. The cottony cushion scale (*Icerya purchasi*), a sap-sucking bug, nearly brought the Californian citrus industry to its knees until Australian ladybirds (*Rodolia cardinalis*) were brought in as biocontrol agents in 1888, in the world's first outstanding example of biological control. Californian crops have also come under attack from the citrophilous mealybug (*Pseudococcus calceolariae*), another Australian insect, and eucalypt plantations are attacked by Australian psyllid bugs and beetles. These examples should remind us that the spread of pests goes both ways. Australia can seem especially vulnerable to introduced species, but we are a major exporter of pests as well.

For more about the moth see:
http://www.nytimes.com/2007/06/18/us/18moth.html?th&emc=th

The opinions expressed in this newsletter are not necessarily those of the Invasive Species Council.

Invasive Species Council Membership application form

ABN 27101522829

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Membership rates:

(all prices are GST inclusive)

❑ Regular	$22
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I would also like to make a donation [1] _____
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Is this a ❑ new membership or a ❑ renewal?

* Donations of $2.00 or more are tax deductible.

[1] Representing a donation to the Invasive Species Council Fund - a public fund listed on the Register Of Environmental Organisations under item 6.1.1 of subsection 30-55(1) of the *Income Tax Assessment Act 1997*.

Thank you for joining us. Please send this form and a cheque to:

Invasive Species Council
PO Box 166, Fairfield, Vic. 3078.

Cheques and Money Orders should be made out to the 'Invasive Species Council Inc'.
Sorry we do not have credit card facilities at this stage.

The Invasive Species Council

Invasive species are a growing problem all over the world, and Australia, an isolated island state with a unique fauna and flora, is especially vulnerable. Over the years incredible harm has been done by such pests as foxes, rabbits, toads, carp, prickly pear, blackberries, rubber vine and the tree-killing disease phytophthora. At last count, Australia had 2,700 weed species and more than 200 marine invaders.

Even though the impacts are immense and ongoing, invasive species aren't being tackled seriously. An alarming number of invasive species are still coming in, staying, and spreading in Australia.

The Invasive Species Council is an independent, non-government organisation set up to campaign and advocate to stop further invasions, and to contain invading species already present. If you care about the threat posed to Australia by exotic invaders, please join the ISC. We believe we are the first group in the world created *solely* to lobby against invasive species of all kinds.

We want stronger laws on invasives, tighter quarantine controls, regular monitoring of harbours for marine invaders, and Rapid Response Teams to eliminate new invaders. Join us to help make these a reality.

campaigning **raising awareness** **convincing our governments to act**