Feral Herald

Newsletter of the Invasive Species Council, Australia

Working to stop further invasions

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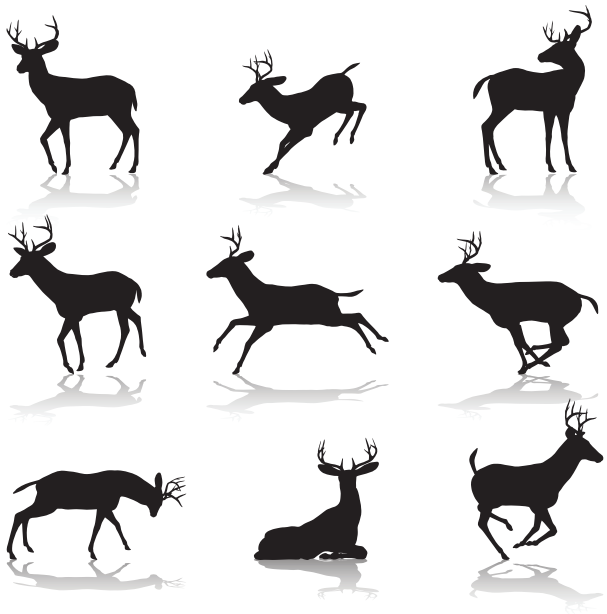
A DEER MISTAKE



The Victorian Government is planning to subsidise recreational deer hunting under the guise of an environmental program for habitat restoration.

In November 2008 the Victorian Government invited expressions of interest from landholders to participate in a scheme to facilitate recreational hunting of duck, quail and deer on private properties. Landholders would receive direct or in-kind payments from hunters and access to government incentives and subsidies to improve habitat and hunting conditions.

Invasive Species Council Policy Officer Carol Booth conducted a preliminary assessment of this proposal, focusing on deer hunting, and concluded that it would be environmentally damaging. This is despite the Department of Sustainability and Environment claiming that the primary aim of the scheme is environmental and that it will result in improved outcomes for biodiversity conservation. ISC questions the sincerity of the department in claiming that the scheme is for biodiversity conservation and suggests that the real agenda is to benefit hunters.

Feral deer are a serious and growing environmental problem in Victoria and other states, recognised by the Victorian Government listing of sambar deer and the New South Wales Government listing of herbivory and environmental degradation by feral deer as key threatening processes. To protect vulnerable plant species, vegetation communities and faunal habitats, it is vital to protect them from deer grazing, browsing, trampling and other degrading impacts. This can be

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Views expressed in this newsletter are not always those of ISC.

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NT GAMBA BAN

The Northern Territory Government has finally declared gamba grass a weed.

On 25 November 2008 environment minister Alison Anderson issued the declaration that should have come years ago.

This follows on from declarations of gamba grass as a weed in Queensland and Western Australia earlier in the year (see Feral Herald 18).

Gamba grass, which fuels fiercely destructive fires, can no longer be planted as a pasture grass anywhere in Australia.

ISC campaigned for the declaration (see Feral Herald 16,), speaking out on national radio, talking to governments and organising a petition signed by 200 scientists and released to the media in Darwin and Brisbane.

The declaration in the Northern Territory was reported in the Melbourne Age as "a move hailed the most significant environmental step of Labor's seven years in office".

Following the declaration, ISC campaigner Tim Low appeared on ABC radio in the Northern Territory and Queensland and was quoted in The Courier Mail.

Two zones have been created in the Northern Territory for different management of the weed. In the management zone, which extends from Darwin to Katherine, gamba grass is already widespread, and must be contained but need not be removed. The NT Government's website explains:

"If your property is located within the management zone, you will be required to control and contain the spread of gamba grass. Across the whole of the Territory, no new plantings of gamba grass will be permitted but existing plantings in the management zone can continue to be used."

The rest of the Northern Territory has been declared an eradication zone and all plants must be removed by landholders.

Gamba grass is such a tall grass that the fires it fuels can kill trees. A Queensland Government assessment concluded that its spread could convert Australia's northern savannas into treeless plains.

Gamba has been planted so widely that its eradication from the Northern Territory and Queensland is not considered possible. The NT declaration reflects the political and logistic reality that the grass cannot be removed from holdings where it is entrenched.

ISC congratulates all those environmentalists and scientists in the Northern Territory who worked in so many ways to persuade the NT Government to take this step.

NO TO BUMBLEBEES

ISC is rejoicing over Federal Environment Minister Peter Garrett's decision to reject the long-standing application by the hydroponics industry to import bumblebees (Bombus terrestris) into Australia as crop pollinators.

In a press release issued on 26 October 2008, Garrett noted that bumblebees could pose a serious risk to native birds and bees.

"While I appreciate the potential benefits of improved pollination for the hydroponic industry, the national environmental legislation requires me to adopt a precautionary approach to any proposal to introduce a new species into Australia."

ISC opposed the proposal (see Feral Herald issues 11, 12 and 13) and submitted a submission two years ago (by far the largest and most detailed the federal environment department received). Written mainly by pollination expert and ISC member Dr Andrew Hingston, with assistance from Tim Low and Jason Doyle, the ISC report ran to 50,000 words and contained more than 500 references.

The hydroponics industry application was appalling. It pretended there was no case to answer, that bumblebees were not behaving invasively anywhere in the world, and tried to portray its opponents as coming from a narrow alarmist base.

The authors went so far as to claim that, apart from articles in Practical Hydroponics & Greenhouses Magazine, the "scientific publications relative to this issue fail to present a fair and balanced perspective on the issue."

But as Peter Garrett noted in his press release, the bumblebee is listed as a potentially threatening process in Victoria, as a key threatening process in New South Wales, and an invasive alien species in Japan.

Vegetable growers want bumblebees to pollinate greenhouse crops of tomatoes and capsicums. But when kept inside greenhouses bumblebees inevitably escape, and feral populations have formed in many countries.

Bumblebees are present in Tasmania, a consequence of an illegal or accidental introduction from New Zealand. Trials on Tasmania's feral bumblebees found they were very poor pollinators of tomatoes, preferring to forage on flowers growing outside the glasshouses, which they accessed through tiny holes. For this reason, growers want bumblebee stock from overseas.

In Tasmania, bumblebees spread over much of the state within a decade of their arrival, and can now be seen foraging on the flowers of many native plants. Around Hobart they can be seen harvesting nectar from blossoms of blue gums (*Eucalyptus globulus*) alongside endangered swift parrots, which depend on blue gum nectar to rear their young.

Bumblebees were a major campaign issue for ISC in 2006, so we are very pleased with the minister's decision. We have already heard rumours that the hydroponics industry will submit another application, which we will oppose. The price of freedom from bumblebees is eternal vigilance.

We thank all those ISC members who supported our call for objections to this proposal. Our special thanks go to Andrew Hingston for caring so much.

WHAT YOU CAN DO
— from the president

Ask not what ISC can do for you, but what you can do for ISC...

We know you didn't join ISC for its membership perks. We presume you joined because you know invasive species are a serious, under-rated, poorly addressed threat to Australia's environment and you want to be part of doing something about it.

As ISC builds its capacity for increased advocacy, we'd like you to consider whether and how you'd like to be more involved.

Would you like to be part of a rapid response team to respond to news items and government processes with emails, letters or submissions? See 'Join the response team' (page 11).

Would you like to be the ISC board secretary, or play another role on ISC's board? With a baby on the way, ISC secretary Lisa Jegathesan needs a successor (see page 11).

Would you like to volunteer your expertise in invasive species — as a reviewer or contributer? We need people to review the reports we produce and to be part of an expert panel for our climate change and invasive species project.

Would you like to donate money to help us do more work? ISC must be one of the most efficient transformers of donations into advocacy. We don't maintain offices or administrative staff. We turn donations directly into more campaign activity. With the economic situation, there will be less philanthropic money available, so we will be more reliant on private donors.

For further information on becoming involved please contact Carol Booth, ISC's Policy Officer, at carolbooth@invasives.org.au.

At the risk of embarrassing them I'd like to highlight the contributions of two ISC members.

Congratulations to Andrew Hingston for his painstaking effort in documenting the potential impacts of bumblebees, which formed the basis of ISC's submission to the federal environment department. As our story on page 3 reveals, the environment minister recently refused an application to import bumblebees.

I'd also like to congratulate member Gordon Rowland on his recent initiative to try to make the nursery industry more accountable for the weed risks of their products. Motivated by ISC's documentation of the synergistic threats of invasive species and climate change, Gordon wrote to the nursery industry peak body asking them how they planned to respond to the threats. He garnered the signatures of various august people to support the letter. After months, the nursery organisation has still not responded, so Gordon is planning to take the matter further.

ISC is very pleased to welcome John Sampson as a new part-time member of staff to join Carol Booth (Policy Officer) and Tim Low (Project Officer). John is our Communications Adviser, and will be managing our website (to be updated) and helping with other communication products, including the publication of a regular ebulletin.

John has a background as a journalist and filled a similar role with the Victoria Naturally Alliance until he moved to Tasmania.

All staff currently work part-time from their home offices, co-ordinating with the board and each other through the internet and phone. It's an organisational model that works efficiently and uses minimal resources.

Steve Mathews

HUNTING DEAL FOR NEW RESERVES

ISC congratulates the Victorian Government on the creation of the new Red Gum national parks, but criticises the decision to allow recreational hunting for feral animal control.

The sorry Victorian proposal to foster deer hunting (see page 1) has been complemented by a deal to allow recreational hunting in the states new Red Gum national parks. Here is an opinion piece by Carol Booth on the issue, published by Victoria's Weekly Times newspaper.

Feral pigs and foxes are a serious threat to the new Red Gum national parks, but the Victorian Government's decision to allow in recreational hunters is unlikely to help. It could worsen the feral animal problems.

On the surface it seems like a good idea: recreational hunters kill animals, which means fewer pests, which means less damage to the environment. But there are flaws in the 'dead pest is a good pest' thinking.

Victoria had a fox bounty in 2002-03 that resulted in 170,000 dead foxes, but was abandoned because it didn't work. A review of the scheme found that it made some difference in less than 4 per cent of the state, in areas where hunting access was easy. There was evidence that some hunters left foxes behind so they would have something to return to.

Virtually every bounty scheme in Australia and overseas has failed. They typically reduce pest numbers by a paltry 2-10 per cent. For some feral animals half the population must be culled every year just to maintain the status quo.

The use of recreational hunters to control feral animals inside reserves usually doesn't work because their kill rate is lower than the replacement rate.

In a South Australian reserve in 2002, 65 recreational hunters shot 44 deer in four days, less than the annual population increase. In the same area five years later one professional aerial shooter in just four hours killed 182 deer, more than 90 per cent of the estimated population.

In three years of pig control in a Florida reserve, recreational hunters removed less than 13 per cent of pigs taken by professional cullers over just two years.

Hunting skills vary greatly, and a small number of skilled hunters achieve the vast majority of kills. In New Zealand just 5 per cent of hunters account for more than half the deer killed for sport, and most shooting is conducted close to roads.

Hunting pressure close to roads has the potential to push feral animals into remote areas, increasing the pressure on more pristine locations.

When skill levels are low, animal welfare and human safety are put at risk.

By allowing hunting in Victoria's newest national parks the State Government may unwittingly encourage hunters to move pests to build up prey numbers. This already goes on.

More than half the 218 new feral deer herds that have appeared in Australia over recent years are the result of deer being moved illegally, mainly to create hunting opportunities. In NSW national parks and state forests, deer have been found with ear tags from farms far away, implying deliberate introduction.

In southwest Western Australia, where feral pig numbers are increasing and populations are appearing in new areas, a genetics study indicated that movement by people had a lot to do with it. The researchers concluded that feral pigs were being "deliberately and illegally translocated to supplement recreational hunting stocks".

Recent actions by the Victorian Government are worrying. A pattern is emerging of deals offered to recreational hunters in the guise of environmental programs. A recent proposal to subsidise deer hunting on private properties was presented as a scheme to benefit biodiversity, but will instead result in larger feral deer populations causing greater environmental harm.

The proposal to pass responsibility for feral animal control to recreational hunters in national

Continued next page

HUNTING IN RESERVES

Continued from previous page

parks is a political deal, not a plan for feral animal control.

It's time the Victorian Government got serious about feral animal control in our national parks and committed itself to ongoing, rigorous control programs, adopting the most effective and humane methods, and employing professionals, not amateurs.

The opinion piece can be found at http://www.weeklytimesnow.com.au/article/2009/01/12/40891_opinion-news.html.

The Invasive Species Council has summarised the fallacies and risks of recreational hunting in an essay that is published in draft form on the ISC website at www.invasives.org.au/home.html. We welcome your feedback.

DEER HUNTING

Continued from page 1

achieved only by eradicating deer where feasible and by control and containment in other areas to prevent and minimise damage.

In our report, A Deer Mistake, we drew on previous studies to show that recreational hunting is of very limited value in controlling deer. Recreational hunters remove too few animals, focus on easily accessible areas, target male deer, and are limited by regulations designed to protect deer as a hunting resource. Moreover, hunters are mostly motivated not to limit deer populations but to expand and increase them to make hunting easier and to increase hunting options. Most of the recent substantial increase in the number of feral deer herds in Australia has probably occurred due to hunters illegally shifting deer to new areas.

By providing incentives to landholders to facilitate recreational deer hunting the government will sponsor further increases in deer numbers and the creation of new populations on private properties. The scheme is likely to expand feral populations as deer spill out from participant properties and seek to escape hunting.

The scheme will make it politically and logistically harder to control deer populations for conservation reasons because it will create a larger constituency as well as a stronger financial basis for the deer-hunting lobby.

Biodiversity will be much better served by ensuring protection of remnant vegetation threatened by deer populations (on and off private properties) than by creating more habitat for more deer.

The Victorian Government has so far failed in its

A fig tree grazed by deer (NSW).

obligations to protect Victoria's biodiversity where it is threatened by increasing numbers of deer. The Invasive Species Council urges that the scheme to foster recreational deer hunting on private properties be abandoned, and that the government focus shifts to (a) assessing deer populations and the harm they are causing to biodiversity and (b) implementing effective control programs to eradicate and reduce feral deer populations to limit harm to biodiversity. Feral deer should be treated as an environmental threat rather than protected as a hunting resource, and the protection of deer as wildlife should be rescinded.

ISC's report, A Deer Mistake, can be downloaded from www.invasives.org.au/home.html.

Action alert: Please write to the Victorian environment minister protesting the proposed scheme. The Minister for Environment and Climate Change and Innovation, Gavin Jennings MLC, can be emailed at gavin.jennings@parliament.vic.gov.au.

Crazy Ant Update

The Queensland Minister for Primary Industries, Tim Mulherin, has assured ISC that Queensland is strongly committed to the eradication of yellow crazy ants.

After a meeting with Biosecurity Queensland in August, ISC Project Officer Tim Low wrote to the minister drawing attention to the low funding base of the operation. The fire ant and electric ant eradications are much larger operations because they are nationally cost shared programs.

ISC is the main community voice calling for action on crazy ants. They pose a serious threat to rainforest fauna, having reduced densities of birds and invertebrates on Christmas Island, where they have long been resident.

Asian Honeybee Battle

Biosecurity Queensland is battling on in its attempt to eradicate Asian honeybees (*Apis cerana*) from the Cairns region, where several hives have been found in recent months (see Feral Herald 19).

When ISC spoke to BQ about Asian honeybees a few months ago the agency was very confident that success was near, but that confidence has now receded.

The rainy wet season in north Queensland is underway, making bees more difficult to detect, and increasing the prospects of new colonies forming. Biosecurity Queensland is asking birdwatchers to collect pellets from beneath roosts of rainbow bee-eaters to see if remains of Asian honeybees are present.

European honeybees have a wide range of impacts on native fauna, and if Asian honeybees, become established they can be expected to add to those impacts.

Quarantine Report Out

The Quarantine and Biosecurity review has published its report, One Biosecurity: A Working Partnership.

The report is more than 200 pages long and ISC has not yet digested all its contents, but there are many useful recommendations.

The report concludes, surprise, surprise, that Australia's quarantine agencies are "significantly under-resourced":

"The panel considers that in order to achieve the One Biosecurity: A Working Partnership model, a funding increase in the order of $260 million per annum will be required—shared between businesses through cost recovery, and taxpayers through the Commonwealth budget, including the passenger movement charge. This figure is equivalent to nearly 50 per cent of the current Commonwealth effort."

The report proposes a shift in focus from 'quarantine' to 'biosecurity' and this we heartily endorse, because so many new pests are detected after they have already entered the country, tramp ants for example.

One important recommendation is a proposal to merge Biosecurity Australia with the Australian Quarantine and Inspection Service into a new National Biosecurity Authority. Biosecurity Australia has lost credibility with many sectors of society over a range of issues, including its refusal, until strong political pressure was applied, to close the weed risk assessment loophole that ISC exposed several years ago (see Feral Herald 3).

The report quotes from the ISC submission about the priority given to agricultural pests over environmental pests:

"There has long been a strong bias in biosecurity and quarantine towards invasive species of potential harm to agriculture over environmental weeds and pests. There is still insufficient focus on environmental risks and inadequate competency within Biosecurity Australia to assess and manage these risks" (ISC submission, page 1).

ISC will present a more detailed assessment of the report in the next newsletter.

Download report from http://www.daff.gov.au/about/publications/quarantine-biosecurity-report-and-preliminary-response.

Federal Act Weak on Invasives

It's time the Federal Government took more responsibility for the invasive species that harm Australian biodiversity and matters of national environmental significance.

Invasive species are one of the top three threats to Australia's biodiversity and to the matters of national environmental significance recognised under the Environmental Protection and Biodiversity Conservation Act 1999. But the EPBC Act does too little to address these threats.

There are currently two reviews underway into the operation of the Act: a Senate review and a 10-year review commissioned by the federal environment minister. ISC is advocating (in submissions and an appearance before the Senate inquiry) that the Federal Government assume a greater role in addressing invasive species threats.

In particular, ISC proposes federal action on the thousands of invasive or potentially invasive species already in Australia that are not being regulated by the states and territories. The majority of the most serious invasive threats to Australian biodiversity are not regulated at all, and can be freely traded, planted or stocked, and spread.

Given the scale of the threats and the significance of the values at stake, there is very good reason for federal controls. There is already provision within the EPBC Act to regulate the trade or use of invasive species in Australia, but it needs regulations for enactment.

The Act currently addresses invasive species threats to some extent prior to importation and after they have become an established and serious threat. The Act requires assessment of proposals to import new species that may harm biodiversity and provides for the declaration of key threatening processes. These areas also need reform.

We need ways to protect the Australian environment from new high-risk genetically distinct variants of species permitted for import. And as the reviewers of quarantine and biosecurity recognised, systems for environmental biosecurity do not match those for industry.

The EPBC Act provides for the listing of key threatening processes and the development of threat abatement plans to address these threats. Of 17 currently listed threatening processes, 12 involve invasive species (seven for vertebrates pests, two for invertebrate pests and three for pathogens). Of 10 plans, nine are for invasive species. The listing of threatening processes and implementation of plans to address the threats is an appropriate way to manage the threats of established high-threat invasive species. However, the plans are generally poorly funded (see story about *Phytopthora* in Feral Herald 19) and cover only a small proportion of invasive species threats.

Climate change will worsen the world's invasive species problems, and many of the threats of climate change to biodiversity will be manifested by invasive species benefiting from climate change. Climate change adds impetus for reform of federal approaches to invasive species.

The ISC submissions can be downloaded from our website at www.invasives.org.au/home.

Tilapia threat to Gulf of Carpentaria

The Queensland Department of Primary Industries is poisoning a section of Eureka Creek near Chillagoe, west of Cairns, in an attempt to prevent tilapia, a highly invasive fish, from colonising the Gulf of Carpentaria. The creek flows into the Walsh River, a tributary of the Mitchell River.

Tilapia can only have appeared in the stream as a consequence of deliberate introduction.

It is illegal in Queensland to possess tilapia for any purpose, with fines of up to $150,000 applying.

Mosquitofish or Plague Minnow?

Because mosquitofish don't live up to their name, and have become the world's most abundant freshwater fish, some experts propose they be called the plague minnow.

A global review of the impacts of the mosquitofish, also known as the plague minnow (*Gambusia holbrookii, G. affinis*), has been written by Graham Pyke of the Australian Museum.

In the late nineteenth century, when the role of mosquitoes in spreading disease became known, interest in controlling them grew. In 1918 mosquitofish were credited with reducing malaria along the Mississippi River, and yellow fever in other countries they were taken to.

The two fish, native to North America, thus gained a global reputation for mosquito control, and releases all over the world followed. They are now the world's most abundant freshwater fish.

Many experts have proclaimed that mosquitofish reduced disease rates, but according to Graham Pyke, "other researchers have concluded that there is no unequivocal evidence that gambusia have ever reduced mosquito density sufficiently to control mosquito-transmitted disease".

Some evidence suggests that mosquitofish increase the abundance of mosquito larvae instead by preying preferentially on notomectids, which are invertebrate predators of mosquitoes. Notes Pyke:

"Adoption of the name mosquitofish for both *G. affinis* and *G. holbrooki* contributed to the unquestioned acceptance of these fish as the "logical choice for mosquito control" and resulted in little evaluation of either the effectiveness of these or other fish in controlling mosquitoes or of the impacts of such control measures on other components of the environment."

The evidence is stronger that mosquitofish can have a serious impact on frogs, by eating their eggs or young tadpoles, and on other small fish. There are many examples of small fish species disappearing from wetlands, and certain frogs becoming scarce, after mosquitofish were introduced. They have been declared a threatening process in New South Wales.

Because of their threats, and doubts about their effectiveness for mosquito control, many experts have proposed that they be renamed 'plague minnows'. Pyke suggests the common name 'gambusia' as a non-emotive alternative.

His review draws attention to their extraordinary environmental tolerances. They can live in water that varies from 0-45 °C, in the saline waters of estuaries, and in water that is highly polluted. They are short-lived fish that seldom last as a long as a year, but are highly fecund, females reaching maturity in 18 days.

Pyke, G.K. (2008) Plague minnow or mosquito fish? A review of the biology and impacts of introduced gambusia species. Annual Review of Ecology, Evolution and Systematics 39: 171-191.

Invasives threaten a third of rare birds

Invasive species impact on at least a third of the world's threatened bird species, a new study by Birdlife International has found.

Mammals are the main invasive species to cause problems, especially carnivores and rodents. Especially harmful species include cats, black rats and pigs.

The Indian myna is the invasive bird that causes the most problems.

Invasive species, including pathogens such as avian malaria, have been a driver behind 51 per cent of bird extinctions since 1500. They are ranked second only to habitat loss as a cause of bird extinctions.

Butchart, S.H.M. (2008) Red List indices to measure the sustainability of species use and impacts of invasive alien species. Birdlife Conservation International 18 (suppl.)

WORMS AWAY

Earthworms are seldom paid much attention as invasive species but their impacts can be spectacular and wide-ranging.

In the Northern Hemisphere, native earthworms vanished from large regions during the Pleistocene glaciations, and these regions have proved especially susceptible to earthworm invasions, with major changes occurring to soil structure, organic matter and nutrient dynamics, and subsequent changes to plant and animal communities.

Australia is not in this situation, but is nonetheless home to at least 66 introduced species, mainly from Europe, Asia and South America. Some species were brought to Australia deliberately to improve soil structure, others came unannounced in pot plants.

An excellent overview of introduced earthworms appears in the latest issue of the Annual Review of Ecology, Evolution, and Systematics. It notes that introduced earthworms "now occur in every biogeographic region in all but the driest or coldest habitat types on Earth".

Exotic earthworms have the potential to benefit from climate change and to influence the outcomes. Some species already occur near the Arctic Circle in Russia and could be expected to advance northwards as permafrost thaws.

"In the short term, especially in areas previously devoid of earthworms, invasive earthworms may increase the decomposition of soil organic matter and release more CO2 into the atmosphere…, and in some cases also more N2O (Rizhiya et al. 2007). In the longer term, earthworm activities may increase sequestration of organic carbon in soil via protection from decomposition within water-stable aggregates resulting from earthworm castings…"

Hendrix, P.F. et al. (2008) Pandora's box contained bait: The global problem of introduced earthworms. Annual Review of Ecology, Evolution, & Systematics. 39:593–613.

Overview of marine invasives

A recent study of marine invasive species from all around the world has confirmed what is already well known: that international shipping is the main cause of serious invasions.

A database compiled by The Nature Conservancy shows that 69 per cent of serious invaders travelled with shipping, 41 per cent with aquaculture, 17 per cent with canal construction, 6 per cent with the aquarium trade, and 2 per cent with the live seafood trade. The high numbers associated with aquaculture are due mainly to pests travelling on the shells of oysters when the molluscs are moved to new locations.

The largest numbers of invaders are in northern California (including San Francisco Bay), the Hawaiian Islands, the North Sea, and the Levantine Sea in the eastern Mediterranean. South-eastern Australia is mapped as the worst-affected area in Australia.

The authors of the study notes that it "provides a powerful, objective argument in support of ongoing efforts to improve ballast water management practices." But many marine species travel on hulls, and these are poorly regulated.

The database and the study that reviews it can be downloaded from:
http://conserveonline.org/workspaces/global.invasive.assessment/

Molnar, J.L. et al. (2008) Assessing the global threat of invasive species to marine biodiversity. Frontiers in Ecology and the Environment 6(9): 485–492, doi:10.1890/070064.

ISC needs a secretary
IS THAT YOU?

Lisa Jegathesan (nee Crowfoot) has served ISC as an excellent secretary for the past few years. Now Lisa is having a baby and so ISC needs a new secretary. Could that be you?

The role requires you to keep minutes of board meetings and the Annual General Meeting (AGM), assist the president to prepare meeting agendas, help organise and send out notices to members about the AGM, write any letters or correspondence as directed by the board, as well as notify the Australian Securities and Investments Commission of any changes to the board. It would be best if you were located in Melbourne as this is where Board meetings are held.

If you'd like to know more about the position, please email Lisa at membership@invasives.org.au

WORDS COUNT
Join our rapid response team

ISC doesn't do weed pulling or feral killing, but we still need you to get down and dirty to help protect our environment from invasive species. It's not herbicides we want you to spray, but words. It's not a gun we want you to wield but a pen (or a keyboard).

Email active@invasives.org.au to join a rapid response team to receive notice of opportunities to demonstrate to decision-makers that Australians want invasives reform.

We will email you when there are opportunities to request particular actions of governments, to respond to media stories or to make a submission.

High Invasion Rates

An invasion rate of 25 per cent for birds and mammals far exceeds that predicted by the tens rule.

Analysing data on invasive mammals and birds from around the world, Jonathon Jeschke of the Ludwig Maximilians University in Munich found that 79 per cent of mammals and 50 per cent of birds that were introduced somewhere new established themselves, and that 63 per cent of the established mammals and 34 per cent of the established birds became invasive.

These percentages are noteworthy given the emphasis in the invasive species literature on the so-called 'tens rule', which states that about 10 per cent of the species introduced to a region become established, and that about 10 per cent of the established species become invasive. As Jeschke notes, the tens rule implies that about 1 per cent of species introduced somewhere new will become invasive, whereas his dataset suggests an invasion rate of about 25 per cent.

From Jeschke, J.M. (2008) Across islands and continents, mammals are more successful invaders than birds. Diversity and Distributions 14: 913–916.

WEEDS KEEP GOING... & GOING

How long does a weed take, after first introduction to a new region, to reach its full distribution?

Mark Williamson, of the University of York, and seven colleagues set out to answer this question by looking at the distributions in Europe of native plants, plants introduced before 1500 (archaeophytes), and plants introduced more recently (neophytes). They found a relationship between time of introduction, and size of range, strongly implying that many neophytes have yet to reach their full range.

They conclude that, on average, naturalised alien plants take "at least 150 years to fill their range and possibly twice that, 300 years".

They caution that even those plants with small ranges and slow spread may become in time "widespread and possibly troublesome species".

Their study has clear implications for Australia. Most of our weed species were introduced less than 150 years ago, and except for many of the crop weeds that are widely dispersed, we should not assume they have reached their full distributions.

Weed problems in Australia will inevitably worsen as species already in the country expand their ranges, whether or not we succeed in keeping new species out.

The potential of weeds to keep expanding is well recognised by Australia's Weeds of National Significance (WONS) program. Much of the WONS funding is going into the eradication of outlying weed populations, the assumption being that these outliers have the potential to expand over much larger areas. But the WONS program confines its attention to 20 especially serious weeds.

Williamson, M. et al. (2008) The distribution of range sizes of native and alien plants in four European countries and the effects of residence time. Diversity and Distributions DOI: 10.1111/j.1472-4642.2008.00528.x.

New Federal Money for Control

The recent round of Caring for Country grants will greatly increase funding for invasive species control. The Federal Government will pour money into many weed projects, mainly those that target Weeds of National Significance (rubber vine, asparagus weed, parkinsonia, serrated tussock, prickly acacia, willows, bitou bush, boneseed, mesquite), but also including operations that target weed problems in the Kimberley, on Kangaroo Island, and on the Cradle Coast of Tasmania.

Lord Howe Island did very well from the funding, with $200,509 made available to eradicate rats, and an even larger sum, $363,636, for eradication of weeds. Lord Howe has exceptionally high biodiversity values, with many plant and animal species found nowhere else, and like most islands it has suffered greatly from alien invasions. Black rats came ashore from a damaged vessel in 1918, leading to the extinction of five of the island's eleven forest bird species. This island is small enough that complete eradications can be achieved.

ISC hopes the funding for The Great Toad Muster and National Cane Toad Eradication weeks achieve long term good for biodiversity. Cane toads can multiply so fast that any that are culled are often quickly replaced.

We also wonder about the National Rangelands NRM Alliance receiving $397,727 to develop a 'National Market Based instrument for Feral Camel Control'. Most feral camels occur in very remote regions, far from any market for their products, and often far from roads, which means the growing feral camel problem cannot be reduced substantially by developing markets for them, except in limited areas. A project like this runs the risk of creating false hopes about profits to be made from camels, leading to a failure to control them except where money is in the offing.

Invasive Species Council

Membership application form

ABN 27101522829

Invasive Species Council Inc
PO Box 166, Fairfield, Vic 3078
isc@invasives.org.au
www.invasives.org.au

Name: ----------

Address: ----------

---------- Postcode: ----------

Phone (work) ---------- Phone (home) ----------

Fax: ----------

Email (please print clearly):----------

Work or voluntary position(s) (if relevant): ----------

Affiliations: ----------

Membership rates:
(these include 10% GST)

☐	Regular	$22.00
☐	Concession	$11.00
☐	Group	$55.00

Is this a ☐ new membership or a ☐ renewal?

I would also like to make a donation[1] (does not include GST): $----------

* Donations of $2.00 or more are tax deductible.
[1] Representing a donation to the Invasive Species Council Fund - the Invasive Species Council Fund is 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.*

Total: **$----------**

Thank you for joining us.
Please send this form and a cheque or money order 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 time. Email if you would like to do a bank transfer.