Feral Herald

Newsletter of the Invasive Species Council

working to stop further invasions

volume 1 issue 6 March 2004 ISSN 1449-891X

Contents

Invasive Species Council Inc.
ABN 101 522 829

www.invasives.org.au

PO Box 571
Collins St. West, Vic 8007

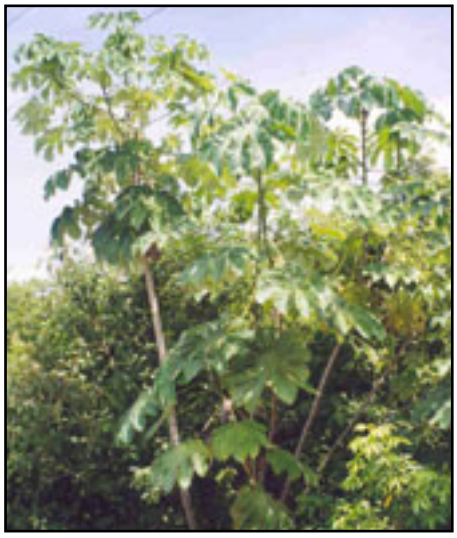
email:
isc@invasives.org.au

Editors
Tim Low
Steve Page
newsletter@invasives.org.au

Please note the new postal, web and email addresses.

Spotlight on Cecropia

Tim Low



Cecropia, a Latin American tree now establishing in North Queensland, has the potential to become a major weed of Australia's Wet Tropics. Currently confined to a small number of sites, it is an ideal candidate for eradication.

When it comes to exotic pests, that old saying 'a stitch in time saves nine' says it all. Complete eradication is only an option if one strikes early, targeting an invader soon after it appears in Australia, not waiting till it has spread everywhere and convinced everyone it is a threat. But all too often, resources are poured into old, entrenched pest problems that cannot be solved, and denied to new problems that can be - until it is too late.

A couple of years ago I received a letter from Mike Puckey, a plant collector living on a hectare of land at El Arish near Cairns. He was dismayed at realising he had been buying plants from specialist nurseries that were turning out to be highly invasive. He had planted miconia, now banned in Queensland, heliconias, ardisias and climbing aroids, all of which were multiplying on his plot. I was particularly struck by his mention of *Cecropia*, a Latin American tree that was marching quickly off his land.

I sent a copy of his letter to the Queensland Department of Natural Resoures & Mines (DNRM) and I read out sections of it when I spoke at a local government weed conference in north Queensland. DNRM eventually sent an officer to Mr Puckey's land who confirmed that the *Cecropia* was behaving like a significant weed. It was the first record of wild *Cecropia* in Australia.

I asked Steve Csurhes, a DNRM policy officer (potential pests) about this tree and he said DNRM lacked the resources to do anything about it. It would not be looked for at other locations and it would not be declared a prohibited plant. The DNRM has plenty of Wet Tropics weeds to worry about and doesn't want its resources stretched so far that eradication of high priority weeds becomes unachievable.

In the time since then I have pondered *Cecropia* and the failure of process

by which it is ignored. It seems to be exactly the kind of invader that deserves funding for eradication – something in the very early stages of spread, never recorded in Australia as a weed before. It is not widely cultivated.

Last September I attended a conference in Mexico (see *Ballast Invaders* article, page 7) then travelled on in Yucatan Mexico and Guatemala. I kept noticing a large-leaved tree sprouting along road verges and fruiting copiously. The long green fruits, packed with hundreds of seeds, were magnets for toucans, tanagers, woodpeckers and other birds. I kept thinking this tree would thrive as a weed in Queensland when I remembered the picture I had seen of the *Cecropia* on Puckey's land.

I was soon able to confirm that I was seeing *Cecropia*, though I am not sure which species, nor which species occurs on Puckey's land, although they looked the same. I saw *Cecropia* everywhere I went. It grew in groves on abandoned corn fields. It was sprouting on the rubble of a collapsed building in the middle of a town. Along with leucaena it was the most common roadside tree weed I saw.

The *Cecropia* trees on Puckey's land could be *C. peltata, C. palmata or C. obtusifolia*. All of these are weeds somewhere in the world; *C. peltata* in Malaysia, Singapore, French Polynesia, Cameroon and Ivory Coast; *C. obtusifolia* in Florida, Hawaii and Raratonga; and *C. palmata* in Florida.

C. peltata, planted in a forestry plot in Malaysia in the 1950s, is now one the most common colonising trees along roads and under pine plantations nearby. Two botanists studying it, Putz and Holbrook, concluded: *'There is every reason to believe … that Cecropia will become an important species in the logged and otherwise perturbed forests that now characterize much of Peninsula Malaysia'*. That is a disturbing statement given that Malaysia has an extremely diverse forest flora.

In Puerto Rico where it is native, *C. peltata* is described as '*abundant in open areas and in logged and natural forests throughout Puerto Rico and is generally considered to be a weed tree'*.

In Hawaii, *C. obtusifolia* occupies low elevation pastures and disturbed wet forests on several islands. In Cameroon, according to McKey, *C. peltata* has spread 'primarily in large areas of disturbed vegetation along major roads in the Southwest and Littoral Provinces', where it is displacing a common native tree.

Cecropia could become a major weed in Australia's Wet Tropics. It produces copious seeds which, in central America, are dispersed by a wide range of birds, bats and monkeys. Mike Puckey has seen flying foxes eat the fruits on his land. The seeds are dormant in the soil and accumulate there in high densities.

Cecropia trees grow very quickly, fruiting within 3-5 years. They behave as weeds in their regions of origin, growing along roads and in abandoned fields. They could become very invasive in fruit orchards in Queensland.

Cecropia would be an ideal candidate for eradication in Australia. It is probably confined to a very small number of sites. It has been grown mainly by a network of specialised plant collectors who know each other. It is a very conspicuous and distinctive, with big leaves resembling those of the pawpaw, and it grows mainly on forest edges, rarely deep inside the rainforest where it would be difficult to locate.

The ISC has sent a report on *Cecropia* to Steve Csurhes, at his invitation, recommending it be declared a Class 1 Potential Weed.

Photographs of Cecropia can be found on the ISC website. (under 'Photo Gallery')

What's new on the ISC Web Site

* Inaugural ISC Awards
* ISC Submission to Senate Inquiry on Invasive Species
* Full text of Tim Low's address on Ballast Invaders, to the Global Biodiversity Forum.
* All back Issues of *Feral Herald* are available on the Web Site.

The Froggatt Award

The annual ISC Froggatt Award honours Walter Froggatt, a scientist who campaigned against the introduction of the Cane Toad in 1935.

The Cane Toad, *Bufo marinus*, was introduced into Australia at Edmonton in North Queensland in 1935 to control the Grey Backed Cane Beetle and the Frenchie Beetle which were devastating northern Australia's sugar cane industry.

The toad was introduced with no research or testing to see if it was specific to or suitable for control of these beetles. Subsequently, it had minimal impact on the beetles and has since become a widespread pest in north east Australia, having significant impacts on indigenous fauna and ecosystems.

The Cane Toad continues to invade across the top end, only recently entering Kakadu National Park. To this day research conducted, particularly into biological control, always meets the public question, *"Will it become another Cane Toad?"*.

The release of the Cane Toad was against the advice of some naturalists and scientists. These included a former New South Wales Government Entomologist named Walter W. Froggatt. Although their protests resulted in a brief moratorium on the release of toads, releases resumed in 1936.

Winner of the Froggatt Award 2003 - Barbara Waterhouse

by Barry Traill

The ISC Froggatt Award is presented annually in recognition of the early warning, preventative action, awareness raising or management of an invasive species in Australia.

Winner of the inaugural Froggatt is Barbara Waterhouse, Team Botanist with the Northern Australia Quarantine Strategy.

Barbara's dedicated work for over a decade has been vital in directly stopping some of the world's worst weeds from establishing in Australia. Firstly as part of the Queensland Department of Primary Industries, and later the Australian Quarantine and Inspection Service (AQIS), her work with quarantine survey teams in northern Australia and Papua New Guinea has helped establish the crucial early detection systems now in place.

Barbara started working in the north in 1990 on what was to have been a short term contract to look for weeds on the move into Australia from New Guinea and Indonesia. She loved the work, the job evolved and she stayed on.

Barbara's greatest satisfaction has been in identifying major weeds before they've 'taken off' and become entrenched. In 1994, while having a day off, she identified an infestation of Siam Weed, *Chromolaena odorata* near Mission Beach in northern Queensland. A South American species, *Chromolaena* is a lantana like shrub/climber capable of invading pastures and rainforest. It is one of the world's worst weeds. Within weeks of the discovery the source infestation had been found and eradication had begun.

She has also been instrumental in early identification in Australia of Mile a Minute Vine, *Mikania micrantha*, Koster's Curse, *Clidemia hirta*, and the pretty but noxious water weed Yellow Burr-head, *Linmocharis flava*.

As well as making assessments of possible weed invaders and then looking for them, Barbara provides advice to AQIS entomologists and plant pathologists on native plants which could act as hosts for invading insects and plant diseases.

Barbara is a big advocate for early detection and response to new weeds, facilitating complete eradication in some cases. She believes more needs to be done from the community as a whole but says 'there has been tremendous

Egg Smuggler

In November a traveller was fined more than $8,000 for trying to sneak a dozen Taiwanese duck eggs through Brisbane airport.

The Brisbane magistrate who heard the case noted that an outbreak of Newcastle disease had struck Taiwan only five months previously, and that the defendant could have introduced a disease that would have devastated native birds and poultry.

Australian courts are handing out ever-larger fines for quarantine transgressions, refecting growing awareness that quarantine breaches are a serious matter.

Mutant Frogs

Mutant green tree frogs turning up around Cairns may be infected with an exotic virus, disease experts fear.

An unnamed virus was evidently responsible for young frogs found last year with deformed spines.

This year's frogs have too many limbs or missing eyes. If not a virus, an unknown pollutant may be responsible.

change in public understanding and in institutions over the last several years in developing early detection and response'.

A big part of Barbara's success in detecting invaders has been working with local networks of naturalists and land managers. She encourages people to send in specimens of possible weeds and either identifies them herself or gets quick identifications with the help of the Queensland Herbarium.

Congratulations to Barbara for winning the inaugural Froggatt!

The Austin Award

The Austin Award is given annually in recognition of the most senseless introduction of, misguided promotion about, or foot-in-mouth comment regarding an invasive organism in Australia.

The inaugural Austin Award goes to the red imported fire ant, *Solenopsis invicta*.

The red imported fire ant was discovered in Australia in 2001, when nests were found on more than 700 properties in Brisbane.

If not eradicated, these ants will cost the Australian economy $6.7 billion over the next thirty years, according to federal government estimates. A $130 million eradication campaign is underway.

The Austin Award recognises Thomas Austin, the person responsible for the first successful introduction of the European Rabbit *(Oryctolagus cuniculus)* into Australia in 1859 at Winchelsea, Victoria.

The Bug That Got Away

Tim Low

Recent damage to garden trees by the lantana stem-sucking bug has caused a flurry of media attacks on the supposed failure of biocontrol. But could a more rigorous testing regime have helped avoid bringing biocontrol into unwarranted disrepute?

In the bad old days many a blunder was made in the name of biological control, including release of cane toads, mosquito fish and Indian mynas. Today's biocontrol scientists are quick to explain that these pests were freed without any prior testing, that today's releases are only made after stringent feeding trials, and that no mistakes have been made for many decades.

But recent events in Queensland have shaken faith in biocontrol. The lantana stem-sucking bug *(Aconophora compressa)* has been wreaking havoc in gardens in South East Queensland.

The *Courier Mail* ran a large article last September headlined 'Backyard Monster!', with the subheading 'Invader as bad as the cane toad'[1]. The little bug was allegedly 'attacking common garden plants and leaving homeowners reeling', and a garden centre was quoted saying that 'our phones ring non-stop and we have customers in the store six-deep all asking about this bug'.

The bugs are attacking fiddlewood *(Citharexylum spinosum)*, an ornamental tree from the West Indies which belongs to the same family as lantana (Verbenaceae). Last spring the ailing trees were a dramatic sight around Brisbane, their upper crowns bereft of foliage and their lower leaves turning orange. Thousands of the tiny sap-suckers could be seen crowded along their stems, completely covering stem surfaces, looking like small thorns. Many gardeners had their fiddlewood trees removed.

This bug was released by the Queensland Department of Natural Resources (DNR) in 1995, without any testing on fiddlewood. Very little was heard about it until the fiddlewood attacks became obvious last year.

A fact sheet put out by DNR during the controversy states that fiddlewoods *'were popular 20-30 years ago…[but] are no longer seen as desirable because their roots damage pipes and underground cables'*. That they are no longer considered desirable is not entirely true; they remain very common in Brisbane suburbs and appear to be fairly popular. From the bounds of my allotment I can see them in four nearby yards.

"Every customer compares it to the cane toad…it's definitely spreading to different plants."
Sue Hawkins, Hawkins Home and Garden, speaking about the lantana stem-sucking bug introduced by the Queensland Government.

If the DNR could be accused of exaggeration, the same could certainly be said of some media outlets. To compare this bug with with the toad was patently absurd. Fiddlewood trees were said to be dying but the DNR could reply, accurately it seems, that no trees had definitely died (except those removed by gardeners).

The bugs were allegedly attacking a wide range of plants but this proved untrue. Colin Campbell wrote in *The Brisbane News* that *'this insect, which was to have become a friend of the farmer and gardener, has now become the enemy'*, but *Aconophora* was never meant to befriend the gardener and it has not became the farmer's enemy.

Like many sap-suckers, *Aconophora* secretes copious fluids which spray onto garden shrubs below and provide food for sooty moulds. Garden shrubs with blackened leaves seemed to be dying from bug-attack, especially when bugs fell onto them as well. DNR would concede that the bugs were probably attacking some Duranta shrubs, plants related to lantana and fiddlewood, but nothing else.

The DNR explained that lantana is a major weed, costing Australian primary industries more than $10 million a year, and that the war against this weed matters more than the fate of one garden tree.

But this argument was not helped by the behaviour of the bugs. Lantana stem-sucking bugs are not always easy to find on lantana. I could not find any at all on one colony of more than 15 lantana shrubs growing within 40 metres of an ailing fiddlewood tree. I have

since found *Aconophora* on a few lantana shrubs but they were few in number and doing very little harm, causing loss of vigour on a few upper stems. The bugs die back in hot weather and this makes their impact difficult to assess.

DNR also made the point that fiddlewood is a potential environmental weed. It is invasive in Hawaii, where people are asked not to grow it, in Fiji and on the Galapagos Islands. All the fiddlewoods in Australia are said to be clones of one male plant, and should a female be introduced - which would be legal under quarantine - a weed problem could soon ensue.

Fiddlewood won a place in horticulture because it grows fast, suggesting it could do well as a weed, but the bugs have now made this less likely. Duranta is becoming a major pest in coastal Queensland and this bug could certainly assist in its control, although *Aconophora* does not seem overly fond of this plant.

At the time of writing, in March 2004, *Aconophora* appears to be in retreat. Trees that seemed doomed are now sprouting large flushes of lush foliage. I cannot find any bugs on them at all, apparently because of the hot weather. The controversy has died away.

The invasion of gardens by *Aconophora* raises a serious question about biocontrol in Australia. I would not say this bug should not have been introduced but it should have been tested first on fiddlewood. Biocontrol scientists vary considerably in their committment to test biocontrol agents. For example the rubber vine moth *(Euclasta gigantalis)* was only tested on 13 native plants, although rubber vine belongs in a family *(Aslepiadaceae)* which contains 86 species in 15 genera.

DNR, armed with the knowledge that *Aconophora* does attack fiddlewood, could have released the bug along with press releases explaining that fiddlewoods would suffer collateral damage in the necessary war against lantana. Fiddlewoods have no colourful flowers or fruits to make them a gardener's favourite, their only attributes being bright green foliage, small white blooms, and fast growth rates. DNR could have maintained control of the situation instead of being put on the defensive and bringing biocontrol into disrepute.

One can only hope that biocontrol scientists are more rigorous in future when testing new agents. The ISC supports the concept of biocontrol but we would be very concerned if insects were released without testing on a full range of native plants.

It is reassuring to see that the Cooperative Reseach Centre for Australian Weed Management is now funding a PhD project, *'Non-target Impact of Weed Biocontrol Agents'*. Dianne Taylor is looking at 'what (if any) errors have been made in the past and what we can learn (or have learnt) from them', using *Aconophora* as one example, and also the insect *Neurostrota gunniella*, introduced to attack mimosa bush, which now also feeds on native sensitive plant *(Neptunia major)*.

[1] Published 7 September 2003

New Bird Atlas

The current distributions of exotic birds appear in Birds Australia's long awaited *'The New Atlas of Australian Birds'*, just published. It shows that house sparrows and European goldfinches have declined in distribution.

Goldfinches once occurred in unkempt parks and paddocks in suburban Brisbane but have now vanished entirely from this region.

Other studies suggest that sparrows are declining because aggressive noisy miners (native honeyeaters) are multiplying.

Exotic common mynas, on the other hand, have invaded Brisbane in recent years, and other areas along the east coast. Unfortunately the atlas does not list this bird as increasing in distribution, although it does record an increase in density.

Blackbirds and spotted turtledoves were also recorded more frequently by the birdwatchers compiling the atlas, implying increases in density.

The New Atlas of Australian Birds. G.Barrett, A. Silcocks, S.Barry, R.Cunningham & R.Poulter. Birds Australia, Melbourne, 2003. Winner of the 2003 Eureka Science Prize

Seastars Spreading

Northern Pacific Seastars have turned up at Inverloch in South Gippsland, raising fears that they will spread widely around Australia's temperate coastline.

The giant starfish were first recorded in Australia in 1986, in the Derwent estuary at Hobart.

In 1995 they appeared in Port Phillip Bay, apparently carried from Tasmania by an unwitting vessel.

The starfish are voracious predators of scallops and other invertebrates.

A large female can lay 19 million eggs, and around Hobart the bright yellow starfish have reached densities of up to 9 per square metre and a total population of about 28 million.

There are hopes - probably unrealistic - that the Gippsland population can be eradicated before they invade the nearby Bunurong Marine National Park.

Join the ISC...

Keep informed, and lend your weight to our important campaigning efforts on Invasive Species.

See the membership form at the back of this newsletter.

Ballast Invaders: the Problem and Response

The last newsletter (Feral Herald 1:5) carried an article by ISC councillor Tim Low, about the Global Biodiversity Forum he attended in Cancun, Mexico, last September, where he spoke about ballast invaders and also about the formation of the ISC. Here is the abstract of the first paper. The full article can be found on the ISC website. (under 'Hot Issues')

Most world trade is by ship, conducted by more than 33,000 large cargo ships. To maintain stability these ships carry ballast water, drawn from ports and bays. This water contains organisms, sometimes including fish, shellfish, worms, algae and dangerous diseases. 10 billion tonnes of water[1] are moved around the world each year, and each day there are 7,000-10,000 species of organism travelling in ballast water.

When ballast is dumped organisms are released, and every nine weeks an invasive species establishes somewhere new. The International Maritime Organization (IMO) recognizes that these invaders pose a grave threat to human health, industry, and global biodiversity.

"Ballast invasions have caused the deaths of more than 10,000 people from cholera in South America, contributed to the collapse of the Baltic Sea fisheries, and pose an imminent threat to the Amazon River ecosystem."

By one IMO estimate, marine invaders are costing the world tens of billions of US dollars each year. Ballast invasions have caused the deaths of more than 10,000 people from cholera in South America, contributed to the collapse of the Baltic Sea fisheries, and pose an imminent threat to the Amazon River ecosystem. The rate of invasion is increasing as world trade grows.

No satisfactory method has yet been found to kill or remove ballast organisms. As an interim measure, the IMO recommends ballast water exchange at sea, a process that reduces but does not stop invasions. The IMO has developed a *Draft International Convention for the Control and Management of Ships' Ballast Water and Sediments*, which will require ships to practise ballast exchange. But cargo ships will continue to spread invasive species, especially on their hulls, a problem the IMO has not addressed.

Ships that carry ballast water should pay a tax or levy to pay for the problems they create. The money should pay for research into solutions and compensate those who suffer from ballast invasions.

[1] In the latest issue of *Ballast Water News* (Issue 14 July-September 2003), the newsletter of the Global Ballast Water Management Programme, the estimate of total ballast water carried around the world has been reduced from 10-12 billion tonnes each year to 3-4 billion tonnes. The new estimate appears in an article, 'How much ballast?', which states that in 2000, crude oil made up about 30% by weight of world seaborne trade, followed by coal (9.6%), iron ore (8.4%), oil products (7.7%) and grains (4.2%). See http://globallast.imo.org

Senate Inquiry

As noted in Ferald Herald 1:4, the Senate has referred the Democrats' Invasive Species Bill to the Senate Standing Committee on Environment, Communications, Information Technology and the Arts for inquiry and report. The Inquiry will be held later this year.

The Bill was drafted in part by former Democrat policy adviser and ISC member Jeremy Tager. The ISC was one of 67 organisations and individuals to make a submission.

The press release below (edited slightly) shows how seriously Democrat Senator John Cherry, who will run the Inquiry, is taking the issue.

26 November 2003.

Democrats' Agriculture spokesperson and Chair of the Senate Environment References Committee Senator John Cherry said he was surprised by the holes in our quarantine system and the lack of co-ordination evident in Australia's efforts to combat invasive species.

"Invasive species like mimosa and cane toads cost Australian agriculture over $4 billion a year in lost production and are arguably the second biggest threat to biodiversity", Senator Cherry said.

"Yet our research effort is under funded, our bureaucrats are too slow to respond to new threats and our quarantine system is riddled with exemptions.

"Our quarantine laws for example allow over 4,500 known weeds to be legally imported into Australia without a permit or licence.

"Similarly, there are numerous weed and feral animal outbreaks around Australia that could still be controlled if decisive action is taken immediately. However, the scientists indicated today that too often the bureaucrats fail to take action, and in doing so, turn a small issue into an agricultural and environmental nightmare.

"One example is the woody weed *mimosa pigra* that could have been eradicated for around $50,000, but now due to inaction, it is out of control and the Northern Territory Government alone spends over $500,000 a year to prevent further outbreaks.

"The evidence provided by senior scientists also indicates that their research efforts are being hampered by a lack of Federal funding and inappropriate funding frameworks.

"The Government boasts about the funding provided under the National Heritage Trust, yet the scientists regard it as useless as they must reapply for funding every year.

"It is ridiculous to think that scientists can develop inventive responses to combating invasive species, when they have no funding security and must spend a large proportion of their time reapplying for grants.

"Scientists today also called for tighter regulation of the plant nursery industry as it is the primary source of introduced weeds. Around 65% of weeds in Australia were originally introduced to Australia as ornamental plants.

"The Democrats initiated this Senate Inquiry, covering quarantine, regulation, research, eradication and control programs, because of the need to develop a comprehensive national approach to combating invasive species."

The following pages contain quotes from some of the key submissions to the Senate Inquiry.

Senate Inquiry Submissions

The following quotes convey something of the flavour of the key submissions to the Senate Inquiry into Invasive Species. The full submissions can be found at http://www.aph.gov.au/senate/committee/ecita_ctte/invasive_species/index.htm

CSIRO

Australia itself accumulates in the order of 20 new species of pests, weeds and diseases a year.

…the number of species annually arriving at our borders is unknown but would be much greater than 1000.

Despite the fact that invasive species are widely regarded as a major threat to biodiversity, it is relatively rare to find much mention of them in biodiversity policy documents, except for a focus on a few high profile species…. There are no national invasive species statutory controls. New Zealand's Biosecurity Act and its regulations provide a useful model here.

The rust fungus *(Puccinia psidii)* is known to infect numerous *Eucalpytus* species and poses the most significant threat to eucalypt plantations worldwide and many plant communities containing Myrtaceous species. Obviously, this species poses a severe threat to native plant communities in Australia …

…attempts to confine spiralling whitefly to the northern tip of Cape York Peninsula proved ineffective. There were no serious attempts to combine containment with eradication and the infestation, which soon spread south to Cairns and beyond, is now too widespread to contemplate eradication. In retrospect, there was little point in bothering with a containment policy for this pest in the absence of any clearly defined commitment to fund an eradication program.

CSIRO believes the development of a national invasive species strategy should be considered. The strategy:

1. could incorporate the National Weed Strategy (NWS), as there are many learnings and insights gained already from the NWS that could be more broadly applied to invasive species;
2. would recognize that invasives are a multi-sectoral problem; and
3. would seek to adapt and apply knowledge gained in managing agricultural invasive organisms to environmental pests (an approach that is already improving management of the Weeds of National Significance).

…insufficient national effort is targeted at the *emerging* problem species. For weeds, the problem is particularly acute. Over 3000 exotic species are naturalized in Australia, representing a pool of species, beyond the control of border authorities, from which the next major weeds will likely be drawn.

Funding for the management of invasive species affecting the environment is also less than is needed, and is inappropriate in its manner of delivery, via the NHT, in annual allocations that do not allow long term strategic control measures to be planned.

It is also likely that a significant proportion of introduced pests are not intercepted, and it is fortuitous that perhaps the majority do not establish.

Federal Department of Environment

Four to 10 native plant species are threatened by each serious weed species; 16 native bird species are threatened or vulnerable due to weeds; 49 native bird species are threatened or vulnerable due to invasive herbivores; 28 native bird species are threatened or vulnerable due to invasive predators (principally foxes and cats).

Under the EPBC Act, nine species have been listed as key threatening processes that threaten the survival, abundance or evolutionary development of native species or ecological communities.

Invasive species listed under the Act include the European red fox, feral rabbit, feral goat, feral cat and feral pig. Several disease-causing organisms are also listed, such as Psittacine Circoviral (beak and feather) disease and chytrid fungus infection in amphibians.

The 1996 *'Australia State of the Environment Report'* identified the impacts of introduced species as a key threat to biodiversity, with every type of ecosystem in Australia and many native species affected by these impacts.

The New Zealand Screwshell … has spread out to the 80-metre depth contour off the eastern Victorian and New South Wales coasts, as far north as Botany Bay. The Screwshell may occur in massive aggregations of several hundred organisms per square metre, and is so abundant in some areas that the benthic habitat has been altered from one of fine sand or mud to one with a dense cover of live and dead shells.

The Prime Minister's Science, Engineering and Innovation Council (PMSEIC) report *'Sustaining Our Natural Systems and Biodiversity'* and background paper *'Setting Biodiversity Priorities'* reports that Australia 'may not yet have seen the worst of this biosecurity risk - there are still many potential invaders waiting in the wings'.

Queensland Government

…Commonwealth funds delivered under the National Feral Animal Program have not had a nationally agreed strategic focus or direction. … there are no national committees that deal with exotic pest fish.

Some invasive species are deliberately imported while others may enter accidentally. Many invasive species are likely to be already lurking in the state; many of today's useful plants may become weeds of tomorrow. Changing climatic conditions also mean that the ranges for certain pests and currently inert species are steadily extending in the state and across the country.

…it is clear that one significant problem for invasive species is that the issue does not have a high profile; it has not yet reached a sufficient level of concern to most politicians, state agencies or local government. This lack of profile is demonstrated by the issue ranking 21st in the list of *"Key issues raised by Federal Parliamentarians"* in 2002 after such issues as salinity, climate change, science in the local electorate, storage of nuclear waste and brain drain.

Queensland has declared all 20 Weeds of National Significance to prevent their sale, however, it is currently unlikely that other states will follow this action in the next 3-5 years due to the legislative cycle and differences in state Acts. When previous attempts were made to nationally declare aquatic weeds, agreement could only be made on 4 species and some states did not declare all of these species. Section 301 of the EPBC Act could be used to achieve this national listing.

WWF

Unfortunately, Australia's national framework to prevent and manage invasive species remains too reactive in nature. The inadequacy of this national institutional, policy, statutory and administrative framework prevents cost-effective and timely interventions.

A major source of this weakness is poor uniformity between State laws; poor harmonisation between Commonwealth initiatives and State law (particularly in relation to prevention and control of invasive ornamental plants); fragmented information systems on invasive species and poor protocols to maintain up-to-date information on what invasive species are present in Australia; and lack of adequate funding for eradication, strategic containment and development of new integrated biocontrol measures.

* Australia has yet to substantially transform its national framework for invasive species from a reactive to a preventative approach, particularly in relation to invasive plants. Reasonable progress has been made in some areas, but in certain instances this is shallow, or undermined by existing institutional and statutory arrangements.
* Australia's national invasive species information systems are fragmented and dispersed. There is significant uncertainty about what non-native species are actually present in Australia, due in part to current AQIS protocols that do not require the official recording of the scientific names for many new non-native plant species being imported into Australia.
* State noxious weed laws are poorly harmonised and together provide a poor national statutory framework. Given it is over 5 years since the adoption of the National Weeds Strategy which included calls for increased consistency between State laws, WWF Australia has very strong doubts about whether the States have the political will to reform their laws within a reasonable period to construct a solid, nationally consistent, preventative, post-border statutory framework to prevent and control invasive plants.

Conservation Council of WA

There is a strong cost / benefit rationale for additional investment in eradicating or controlling invasive species.

In 2002, the Prime Minister's Science, Engineering

and Innovation Council (PMSEIC) identified invasive species as one of four areas in which addressing the decline of Australia's natural systems and biodiversity provided the greatest return on investment.

The Council strongly supports the measures proposed by the Australian Democrats in the above Bill. In particular, we support:

* the requirement for risk assessment before granting import permits;
* the strict banning of further imports of pasture grasses, ornamental plants and aquarium fish; and
* the creation of an Invasive Species Advisory Committee.

To eradicate invasive species one must always act early. Rabbits, rubber vine and Pacific seastars are enormously harmful but nowdays impossible to eliminate; they came in long ago, and they are now thoroughly entrenched and here to stay.

Only when invasive species are just starting to spread, and often before their full impact becomes apparent, is eradication possible. The best value for the pest dollar comes from focussing on new pests, not on throwing money at problems that are insoluble.

Giant Snail Appears

In January a giant African snail was found in a Gold Coast steel factory in a container of industrial pipes imported from abroad.

The giant African snail is recognised overseas as a major pest of crops and garden plants. It grows large enough - to 20 cm - to pose a minor road hazard, cars often skidding when they hit the giant balls of slime at night.

During World War ll the snails were released on various Pacific Islands by the Japanese as food for their soldiers.

The molluscs are a pest of major concern to AQIS, whose inspectors regularly find dormant snails or their egg masses attached to shipping containers.

In 1977 a colony of 300 of the mega-snails was found, and eradicated, at Gordonvale in north Queensland.

The Queensland Department of Primary Industry and the Australian Quarantine and Inspection Service (AQIS) have launched a rapid response to ensure the snails do not establish.

Tilapia Spreading

The noxious fish tilapia is now in the Herbert River catchment in north Queensland. Some fish were found late last year in a weir on the Wild River, a tributary of the Herbert.

Queensland Fisheries was given permission to flood the weir with 760 litres of the fish poison Rotenone, but the poisoning did not proceed and the weir has since overflowed.

Tilapia are often stocked illegally into farm dams and weirs as a food source. In north Queensland they are now in the Johnstone, Barron, Mulgrave-Russell and Black catchments.

Fines of up to $150,000 now apply to fishermen caught using dead or live tilapia as bait.

The ISC is campaigning to protect the pristine rivers of the Gulf of Carpentaria from invasion by this fish. (see *Feral Herald* 1:3 and 1:4)

Invasive Species Council Membership application form

ABN 27101522829

Name: _____

Address: _____

_____

_____

Phone (H) _____ (W) _____

Email: _____

Fax: _____

Work position (if relevant): _____

Membership rates:

(all prices are GST inclusive)

Regular	$22
Concession	$11
Group/Institution	$55

I would also like to make a donation: _____

Total: **_$_____**

Donations are tax deductible

Please send this form and a cheque to:

Invasive Species Council
PO Box 571 Collins St West, Vic. 8007.
(Sorry we do not have credit card facilities at this stage).