## Feral Herald

#### Newsletter of the Invasive Species Council, Australia

working to stop further invasions

volume 1 issue 11-12 May 2006

ISSN 1449-891X

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

ISSN 1449-891X

#### Printing Feral Herald

If you have problems printing Acrobat (.pdf) files on inkjet printers, try printing just a few pages at a time.

# ISC Members Called to Action on Bumblebee Import Threat

The ISC is calling on all members to take note of the recent application to import European Bumblebees to the Australian mainland. Any members with concerns are reminded that now is the time to ensure the Minister is aware of the serious flaws in the report prepared by the applicants.



The dramatic spread of bumblebees across Tasmania since their mysterious arrival there in 1992 has ecologists worried. Bumblebees can readily be observed foraging on native flowers including those of the blue gum, which sustains endangered swift parrots when they breed.

It is thus of great concern to learn that the Australian Hydroponics and Greenhouse Association (AHGA) has again applied to the Department of Environment and Heritage (DEH) to allow the importation of the European Bumblebee (Bombus terrestris) to the Australian mainland (see Feral Herald 4).

The AHGA says that their industry will financially benefit from bumblebee pollination of tomatos, and are dismissing any opposition coming from 'ill-informed environment groups' who use 'emotive arguments'. The proponents have prepared a report assessing the potential environmental impact of amending the 'List of Specimens Suitable for Live Import', under the Environment Protection and Biodiversity Conservation Act 1999.

The report, which can be downloaded at <a href="http://www.deh.gov.au/biodiversity/trade-use/invitecomment/bombus-terrestris.html">http://www.deh.gov.au/biodiversity/trade-use/invitecomment/bombus-terrestris.html</a> contains serious flaws.

- The proponents fail to meet the stated terms of reference by openly refusing to compare the impacts of honeybees (which are known to cause environmental harm in Australia) with those of bumblebees;
- The authors contradict themselves, claiming in their summary that bumblebees are not regarded as pests overseas while reporting on many such claims within the report;

continued page 2

- They dismiss a large number of scientific papers appearing in refereed journals, while urging readers to instead place faith in reports funded by the greenhouse industry;
- They fail to mention several scientific articles which document environmental harm caused by bumblebees overseas, and claim that harm has not been documented, although it is evident from the report that they know of these articles;
- The executive summary fails to reflect the contents, omitting all adverse information;
- The two authors, who live overseas, appear not to understand the unique Australian environment, which features unusually high levels of vertebrate pollination;
- The report alleges that opposition to bumblebees has come from a very narrow, alarmist base;
- The report claims that greenhouse growers need access to bumblebees to remain competitive while also stating that the greenhouse industry is "the fastest growing food producing sector in Australia".

ISC is concerned about bumblebees for several reasons. They multiplied very rapidly after they appeared in Hobart in 1992 and soon spread over most of Tasmania. They can now be found well inside national parks and other reserves (a fact that the AHGA report largely disputes), foraging on native flowers, apparently competing with birds and native insects.

They are known to visit 139 native flower species including those of the blue gum (*Eucalyptus globulus*) on which the endangered swift parrot depends. Feral and domesticated honeybees have already reduced nectar availability in Australia, and we do not need another large exotic bee acting in this role.

Bumblebees also pollinate the flowers of many weed

species, and they are now increasing seed output of several species. Bumblebees thus facilitate weed invasion.

They will ferociously defend their nest and can sting repeatedly. Their venom can cause severe reactions including swelling, nausea, vomiting and difficulty in breathing.

• The ISC is preparing a detailed response to the AHGA report. We are also urging members to write to:

#### The Director

Science and Natural Resources
Department of the Environment and Heritage
GPO Box 787
Canberra ACT 2601

Email: wsm@deh.gov.au

## Comments to the director must be made by Friday 16 June 2006.

• You can write or otherwise directly contact the minister, Senator Ian Campbell, and tell him you oppose the AHGA application.

#### The Hon. Ian Campbell

Minister for Environment and Heritage Parliament House, Canberra, ACT 2600

Tel: (02) 6277 7640 Fax: (02) 6273 6101

Email: senator.ian.campbell@aph.gov.au

## Letters to the Minister can be sent well after the 16 June departmental deadline.

The more letters, emails and phone calls the minister receives, the more likely it is that he will rule against importing this animal.

Tim Low Ferally Yours

#### Quote of the Year

"There is currently considerable pressure from horticulturists to introduce bumblebees to mainland Australia, primarily for glasshouse tomato pollination. If even one new major weed occurs in Australia due to the presence of bumblebees, the economic and environmental costs could be substantial, and may far outweigh the benefits received by tomato growers."

- David Goulson, from the University of Southampton, U.K., writing in 'Risks of increased weed problems associated with introduction of nonnative bee species'. Journal of Food, Agriculture & Environment, Vol. 3 (2): 11-13.

The tomato growers report to the Australian government cites 15 papers authored or co-authored by David Goulson, a leading international bee expert. But they don't cite this one!

#### In this issue...

This issue sees the threat of bumblebee imports rearing its head again. All members should take note of this threat before the Minister makes any decision. (page 1)

In February, ISC launched a CD-ROM information kit, focusing on the threat of the establishment of new invasives, and outlining ISC's priorities for policy changes from government. (page 4)

On page 5, we focus on the winners of the 2005 Froggatt Award. Samantha Setterfield and Michael Douglas, and their many students and collaborators, have generated great community interest and concern over the spread of Gamba Grass and other tropical grassy weeds in northern Australia.

Also in this issue, a report on the exotic African pathogen causing extinctions in Australia's native frog populations, reminds us that weeds and mammals are not the only damaging invasive species. (page 6)

Elsewhere, ISC is pressuring the Queensland government for a higher priority on the assessment of new weeds (page 7); and the Federal Government has rejected the importation of collared doves (page 7).

Australia's Weed Risk Assessment process is, in theory, an example of the Precautionary Principle in practice. This is the subject of ISC's contribution to a new book - *Biodiversity & the Precautionary Principle*. (page 8)

Other reports cover Ferrets (page 9); and updates on Hymenachne (page 8); the Lantana bug and the Inverloch seastar eradication program (page 10).

### From the President...

We are making progress on invasives. As I've mentioned in previous columns I think there are a number of signs over the last couple of years that Australians are more and more realising that invasives aren't just the rabbits and the lantana and the cane toads that are already here and can't be eradicated. People are understanding more and more that we also need to *stop* new invaders coming in and spreading.

Signs such as the recent Senate inquiry, the amount of resources committed to eradicating fire ants, and increasing knowledge on the issue from politicians and environmentalists I talk to.

But- alas- we do still have a mass of work to do. Ignorance and greed still sometimes rule on invasives issues. This is despite two hundred years of lessons on the risks of shipping in exotic species into our ancient and isolated continent.

The latest absolute shocker on this front is the proposal to legally import Bumblebees on to mainland Australia. The accompanying articles describe the problems this could cause.

It is simply ridiculous that any industry group could seriously propose such a thing in this century. We don't need more serious invasives in our environment.

So my strong ask - if you can just do one thing on invasives this yearplease respond to our calls in this newsletter to help on this issue. Please send a personal message opposing the introductions of Bumblebees to Minister for the Environment, Senator Ian Campbell (see page 2).

To ensure we stay sustainable as an organisation, the ISC Board met on a recent Sunday and discussed our future strategy. More details in the next *Feral Herald*. But there are two immediate things.

One is we would love to have some new committed and skilled people nominating for Board positions at the next AGM in September. Some of the current Board have put in several years work and are moving on and we need to ensure a good succession sequence with new people. If you are possibly interested please call me or drop an email and I can discuss the possibilities with you.

Secondly, we are likely to move to a more membership focused campaigning style. We'll keep you posted on how you can be involved more in getting the wins we need on invasives.

Lastly - my apologies for the long interval since the last *Feral Herald* appeared.

May your days ahead be invasive free!

Barry

Dr. Barry Traill, President, Invasives Species Council

## ISC Launches new CD Resource

One of ISC's major goals is to raise awareness of the invasives issue — and in particular point out the serious impacts on Australian biodiversity. To address this issue we've produced a CD-ROM for wide distribution. The CD contains a quickly accessible 'powerpoint' display.

ISC developed the CD as a resource to:

- Introduce people to the Invasive Species Council, and our work;
- Introduce people to the issue of invasive species (if not already aware of it);
- Support efforts in communicating invasive species issues to other groups with little knowledge of the issue;
- Offer support for further action around the problem of new invasives being allowed to establish.

The CD focuses on the issue of new establishments (rather than being simply a catalogue of weeds/ferals and techniques for managing existing infestations), and outlines ISC's priorities for governmental policy changes.

Michael Malthouse, coach of the high-profile Collingwood Football Club in Melbourne, launched the CD. Malthouse is well known for his interest in conservation, and we were very pleased to obtain his support.

The launch gave us the opportunity to send invitations to many influential people and organisations, at least in Victoria, and although not all were represented on the day, our presence has certainly been noted.

Malthouse spoke very well, noting that although he considered himself a 'moderate' (i.e. not a radical greenie), this issue seemed one of simple common sense – don't let weeds in when we were already trying to get rid of the ones we have.

In saying that, he went to the heart of the matter, and confirmed that our case can and will win over reasonable people. Malthouse featured in the TV and radio news coverage we were able to attract, although the planned report in 'The Age' newspaper was unfortunately dropped at the last minute due to the strong coverage given to a tragic car crash in Mildura.

Since that February launch, we have mailed or



personally distributed over 300 CDs (with a suggested newsletter article included for good measure) to conservation, landcare and 'friends' groups across Australia. We will continue to do so over the coming months, and we hope many of the recipients will choose to become involved in the ISC lobbying effort.

Copies of the CD can be obtained by contacting the ISC office. If you know of a group who might benefit from seeing it, please don't hesitate to get one and offer it to them.

Jason Doyle

We apologise for the long interval since the last *Feral Herald* appeared. Issue 11, which was very close to publication early this year, was delayed because of other committments of our voluntary editor. Production of this enlarged edition, combining issues 11 and 12, was further delayed by the need to collect information for a response to the bumblebee proposal.

ISC remains a small organisation with only a parttime director and a voluntary editor. We value our members enormously, and fully recognise the need to keep everyone informed.

## **Tropical Grassy Weed Fighters win 2005 Froggatt Award**

Winner of the 2005 ISC Froggatt Award are Dr. Samantha Setterfield and Dr. Michael Douglas of Darwin. The pair has won the prize for their research on the severe impacts of tropical grassy weeds in northern Australia, and advocacy for a strong response from government.

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.

Douglas and Setterfield have done a great job in showing the impacts of Gamba Grass and other disastrous invasive grasses, which is encouraging action from governments on the issue.

There is now strong community interest in the work to stop the further spread of Gamba Grass in the Northern Territory, in large part because of their work.

Gamba Grass is probably the single greatest threat to tropical savannas, a vitally important Australian ecosystem made up of native grasses in an open woodland. This foreign invader (or invasive grass) builds up fuel to a level which encourages much hotter fires, which kill the native trees, which are a feature of the landscape. The whole area is transformed from a vibrant, healthy savanna into an ugly blanket of weeds.

ISC says that Gamba Grass must be declared a noxious weed across northern Australia, and be prohibited from sale everywhere in Australia, to stop it from spreading to other areas

"This award is really recognition that the uncontrolled spread of Gamba Grass is a disaster for this country, which came about because the agencies responsible for its introduction failed to consider its full range of impacts". Setterfield and Douglas said today.

"The award also recognises the excellent work of our students and collaborators over the past decade".

"We need to act on this threat, but also prevent any similar introductions in the future. Fortunately



governments across the north are moving towards thorough assessments of the risks posed by new introductions and this should stop another monster grass like Gamba getting through."

Congratulations to Samantha Setterfield and Michael Douglas, for winning the 2005 Froggatt!

#### about the Froggatt award

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.

As is so often the case, 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.

The Toad 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. It continues to invade across the top end, 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?"

## **Aid for Ailing Frogs**

As most ISC members will know, many frog species, especially in upland areas, have declined dramatically in recently years, with four species in the Queensland rainforest becoming extinct. Various explanations have been touted, with most frog experts now accepting that an exotic pathogen, chytrid fungus, was primarily responsible.

Examination of museum specimens show that this pathogen first turned up on frogs near Brisbane in the 1978, and later spread along the east coast, to southwest Western Australia, Adelaide, and more recently to Tasmania.

As the Department of the Environment and Heritage notes, 'This highly virulent fungal pathogen of amphibians is capable at the minimum of causing sporadic deaths in some populations, and 100 per cent mortality in other populations'.

To combat the ongoing threat posed by this disease, which is thought to have come from Africa, the federal government has recently released a *Threat Abatement Plan for infection of amphibians with chytrid fungus resulting in chytridiomycosis*. The plan has two broad goals:

- to prevent amphibian populations or regions that are currently chytridiomycosis-free from becoming infected by preventing further spread of the amphibian chytrid within Australia
- to decrease the impact of infection with the amphibian chytrid fungus on populations that are currently infected.

The report sets out the management actions required to meet these goals. Because the disease has not yet reached Cape York Peninsula, the Gulf Country in Queensland, northwest Western Australia, the Northern Territory and central Australia, frogs in these regions may be at great risk because they lack any prior exposure to the disease.

To quote from the background report:

'Extinction is illustrated by the response of the sharp snouted dayfrog, *T. acutirostris*. The status of this frog changed from not listed, to endangered in 1992, to extinct in 1999. This frog occurred

in Queensland only in a range that extended 310 km in upland wet tropics from Mt Graham to Big Tableland, just south of Cooktown. Populations were abundant in all locations, with 50-100 frogs per 100 metre transect being common. The first populations to disappear were in 1990. Populations then disappeared in a progressively northern direction, the final population at Big Tableland disappearing by early 1994. The decline of this population was precipitous, most frogs disappearing over 3 months and survivors dying over the next 6 months. Chytridiomycosis was found in wild T. acutirostris as well as being responsible for the death of adult frogs and metamorphs brought into captivity in late 1993. The last surviving captive T. acutirostris was a male that died from chytridiomycosis at Melbourne Zoo in 1995. Since the causative agent had not been identified at that time, the therapeutic measures adopted in captivity were ineffective.'

In his recent book, *The Weather Makers*, Tim Flannery proposes that climate change was probably responsible for Australia's frog extinctions. He argues (page 21) that 'The latest analyses suggest that at least in the case of the gastric brooder and day frog, climate change was the most likely cause for their disappearance.'

Flannery's claim is contradicted by the evidence presented in the detailed DEH background report, which concludes of both frogs that the 'Pattern of decline [was] consistent with epidemic chytridiomycosis'.

The overall evidence implicating disease includes:

- sudden, severe declines occurring over a few months at individual sites
- declines that were asynchronous and spread as a front along the east coast
- adults died while tadpoles survived and metamorphs died when they emerged
- no environmental changes were detected
- only stream-dwelling frogs disappeared and
- in one intensively monitored site, mass mortality was observed at the time of a significant population decline.

continued on page 7

continued from page 6

There is ample evidence to show that climate change is affecting Australian fauna, and to divert attention away from this dangerous disease, and the need for hygiene when handling frogs, is irresponsible. Chytridiomycosis is not mentioned in Flannery's book, although he does concede that the cause of frog declines 'is still debated'.

The threat abatement plan and background report can be found at <a href="http://www.deh.gov.au/biodiversity/threatened/publications/tap/chytrid/index.html">http://www.deh.gov.au/biodiversity/threatened/publications/tap/chytrid/index.html</a>

- Tim Low

### Campaigning in Qld

In Queensland, ISC is pressuring the state government to place a higher priority on the assessment of new weeds.

On 25 February an article appeared in the *Courier Mail* under the heading: Weeds winning the war. Based upon a press release issued by ISC director Jason Doyle, it began:

"The war on invasive weeds is so poorly resourced that there is only one Department of Natural Resources officer to assess 133 species that have the potential to overrun the state."

The article explained that at present rates of assessment the department would take about 15 years to assess the threat posed by each weed.

"A weed that might be eradicated for \$1000 today will instead be with us forever and end up costing millions," Mr Doyle was quoting as saying. "We're losing the opportunity to eradicate many of these weeds before they multiply out of control.

"This is an absurd situation. All of these plants are on the list only because eradication is possible and affordable."

ISC councillor Tim Low is quoted saying that some of the weeds on the list have the potential to become as invasive as lantana and prickly pear. They include neem tree, Chinese wormwood, black locust tree and sweet prayer plant.

A departmental source has since indicated that, in the wake of the adverse publicity, funding for new assessments is likely to increase.

#### **Doves rejected**

In December last year the Minister for the Environment and Heritage, Senator Ian Campbell, rejected an application to allow collared doves (Streptopelia decaocto) to be imported into Australia as household pets.

ISC wrote a submission to the department opposing the application, and we are pleased that the government agrees that collared doves possess an unacceptable risk of becoming feral in Australia, based upon experiences elsewhere.

As noted in a previous newsletter, collared doves have proved very invasive in Europe, having spread from Turkey right across to the British Isles during the previous century. They are believed to be the parent species from which the barbary dove was derived, and it has become invasive in China, Korea, the US, Japan and Australia.

There is presently a population of barbary doves, newly established, in Alice Springs, and another newly established population around Adelaide. The collared dove is closely related to the spotted turtledove and laughing turtledove, both of which are feral in Australia.

A press release from the Department noted:

"The available data indicates that this species has a strong climate match to large areas of Australia, its potential range could overlap with susceptible native species, it has established exotic populations in many areas of the world, and is an agricultural pest elsewhere.

For these reasons, the Minister has decided to reject S. decaocto for inclusion on the live import list."

## ISC and the Precautionary Principle

Last year, ISC was commissioned to write a case history of Weed Risk Assessment - the method by which the Australian government assesses new plant species for importation - as an example of the precautionary principle in process.

That case study, written by Tim Low, has now appeared in a book, called *Biodiversity & the Precautionary Principle*, edited by Rosie Cooney and Barney Dickson (Earthscan, London).

The precautionary principle is fundamental to good quarantine. It is the principle by which an Australian quarantine official can decide not to allow in a plant species that appears likely to become a weed, in the absence of firm proof that it will do so.

The precautionary principle is, however, very controversial in international arenas. Within the Convention on Biological Diversity, dispute over the principle has hindered policy progress in key areas. It remains at the core of ongoing disputes under the World Trade Organisation.

The book contains 18 chapters, considering such issues as sustainable turtle harvesting in Costa Rica, Indian national parks, biodiversity in Argentina, trophy hunting in central Asia, and the role of economics and equity. There is one other Australian contribution, on fisheries law in Australia, by Glenn Sant of TRAFFIC Oceania in Sydney.

Here is a quote from the chapter on Weed Risk Assessment, which addresses its applicability to Third World countries:

"Some aid organisations, notably The World Seed Program, controversially promote the planting of weedy shrubs and trees in Third World nations for firewood and stock feed (for example *Prosopis juliflora, Leucaena leucocephala, Acacia nilotica, Gleditsea triacanthos*). These fast-growing plants can benefit local communities and biodiversity by reducing pressure to clear dwindling forests, but they also harm communities and biodiversity by invading land and stalling regeneration. They are a quick remedy that imposes long—term costs which are seldom recognised by those promoting them. Under WRA the importing of such plants, if they were new, would be challenged, and local alternatives would win more consideration."

ISC is pleased to have played a role in contributing to international understanding of the Precautionary Principle. To view the list of contents of the book visit the Precautionary Principle website at <a href="http://www.pprinciple.net/publications/book\_contents.rtf">http://www.pprinciple.net/publications/book\_contents.rtf</a>

To order a copy, visit the Earthscan website at <a href="http://shop.earthscan.co.uk">http://shop.earthscan.co.uk</a>

#### **Hymenachne Work**

ISC serves on the National Hymenachne Management Group, and helped review applications for federal funding (under the Defeating the Weed Menace Programme) to tackle this aquatic grass, which is ranked a Weed of National Significance (WONS).

Introduced into Australia during the 1970s as a pasture plant, it is highly invasive in wetlands in tropical and subtropical Australia, converting open lagoons full of waterbirds into choking tangles of grass. A major goal of the group is to keep this weed out of wetlands in Western Australia and Cape York Peninsula.

Hymenachne was recently recorded for the first time in New South Wales. A substantial infestation, which is now subject to an eradication campaign, was located in the north of the state, after a farmer who visited Queensland brought some back.

Hymenachne is one of Australia's most problematical weeds to manage because many cattlemen value it as a pasture plant. Some infestations have arisen merely because a farmer stuck a piece in a farm dam to see how it would fare. It is very invasive along drainage channels on sugar cane farms.

## **Fears about Ferrets**

The Department of Environment and Heritage has released a report which warns that ferrets pose 'an extreme risk in terms of likelihood of establishment in Australia'.

The *Draft Risk Assessment on the Import of Live Ferrets under the EPBC Act*, by Dr Penny Olsen and Katrina Jensz, notes that ferrets have established wild populations in New Zealand, Britain, Sardinia, Sicily, and very small colonies in Australia.

One population is established around South Arm near Hobart, and another may be established on King Island in Bass Strait. A small colony that was present south of Launceston in the 1990s has since died out, and so too a small population in Western Australia.

Ferrets are regarded as 'a major pest in New Zealand' but there is very little awareness in Australia that wild ferrets also occur here.

The report warns that ferrets, which are avid hunters of warm-blooded prey, could pose a threat to Australia's wildlife:

"In Australia Ferrets have potential to prey on terrestrial species or those that nest on or near the ground, including birds such as petrels and prions, ground parrots and orange-bellied parrots, small-medium sized mammals such as quolls, bilbies, native rats and marsupial mice, and reptiles and amphibians. Particularly if they established on islands, their impact could be significant. They often live in burrows and hence could displace birds, such as pratincoles, mammals and other vertebrates that use burrows (made by rabbits, sea-birds or other mammals) for shelter or breeding. Hence, the potential for Ferrets to impact on native species, including endangered species, is significant."

The Vertebrate Pest Committee has previously classified Ferrets as domestic animals and placed them in Category 4, being 'animals which are recognised as domestic and/or farm animals, or other animals having no pest potential'.

Because of concerns over disease, ferrets are not permitted imports under the Quarantine Act. They are already available in the country as pets in most states, but the federal government is nonetheless under pressure to allow imports of ferrets from overseas.

The California Department of Food and Agriculture (CDFA) considers the Ferret to be 'one of the most unwanted exotic species in California' and they are banned in that state. They can legally be kept as pets throughout Australia, except in Queensland and the Northern Territory.

The Queensland government has come under considerable pressure from the Queensland Ferret Welfare Society (which has 13 members according to this report), to allow ferrets to be kept in that state.

The *Courier Mail* has run articles very unsympathetic to the Queensland government position, showing pictures of ferret-lovers hugging their pets, which have to be kept over the border in New South Wales.

The ferret report is available online at <a href="http://www.deh.gov.au/biodiversity/trade-use/invitecomment/ferrets.">http://www.deh.gov.au/biodiversity/trade-use/invitecomment/ferrets.</a> html

#### **Ecological Society of Australia**

At the 2005 Annual Conference of the Ecological Society of Australia, held in Brisbane in November, many presentations on exotic invaders were made. Here are quick summaries of but a few.

Coastal brown ants (*Pheidole megacephala*) at one site in WA had displaced 90% of the native ant community.

Argentine ants (*Linepithema humile*) form vast supercolonies that may extend over hundreds or thousands of kilometres, and genetic evidence from Australia suggests an 'Australian supercolony' here.

In New South Wales, the mistletoe (Amyema miquelii) was found to promote weed growth by transferring nutrients from its host tree to the ground underneath via its leaf fall.

Two Australian wattles (Acacia mangium and A. auriculiformis), introduced into Brunei as timber trees, are becoming weedy there.

#### **Aconophora**

In issues 6 and 7 of the Feral Herald we reported on Aconophora, the lantana bug which in Brisbane has given biocontrol a bad name by attacking ornamental fiddlewood trees, sometimes causing massive discolouration and leaf drop.

Two years later, Aconophora has now spread from Queensland south to Lennox Heads in northern New South Wales. Serious damage to fiddlewoods has been reported in Byron Bay and Tweed Heads.

And despite the controversy, the bug was recently released on the central NSW coast by the NSW Lantana Taskforce, and it has spread from there to the northern beaches of Sydney.

Two summers ago Aconophora was just about impossible to find in Brisbane, hot weather eliminating it from most trees, although it could still be found in gardens on nearby mountains.

Laboratory work indicates that temperatures of 34 ° C kill 95% of adults within 48 hours. Early in spring last year it reappeared in force, with large colonies of the sap-sucking bugs clustering along the stems of many Brisbane fiddlewood trees, causing foliage to turn yellow. But all of these bugs died when hot weather set in.

Brisbane's summer weather imposes a severe constraint on Aconophora, but it may not be so constrained in central New South Wales.

Aconophora is also attacking cultivated duranta bushes, and small numbers can be found feeding on native grey mangroves in southern Queensland. Feeding trials show that it prefers fiddlewood and duranta to lantana. Duranta is becoming a serious weed in some parts of Queensland so its attraction to this plant is welcome.

Aconophora bugs, although very small, occur so abundantly that insectivorous birds target them. Those seen preying on them include magpies, crows, pied currawongs, figbirds, noisy miners, magpielarks, spangled drongos, willie wagtails and house sparrows.

#### Starfish Ousted

The campaign to eradicate Northern Pacific Seastars from Inverloch, on the coast south east of Melbourne, has proved a success. After 900 dives and 650 hours underwater, the Seastar Team has popped the champagne corks, claiming victory in their program of eradication.

The final stage in the operation involved more than 400 individuals, including divers from around Victoria who thoroughly searched the entrance to Anderson Inlet, walkers who double-checked beaches, the Red Cross who fed the hungry searchers, and the SES who helped ferry divers to dive sites and ensured safety on the day.

Not one starfish was found, demonstrating to everyone's satisfaction that this invasive pest from northern Asia has finally been ousted from this corner of Australia.

ISC congratulates the Seastar Team on this sterling achievement. In 2004 we awarded them our Froggatt Award for high achievement in the fight against invasive pests (see *Feral Herald 9*). Very few marine eradications are ever attempted, due to the daunting logistic problems they pose. And the task in this situation looked daunting.

Vigillance will remain important in future because Northern Pacific seastars remain common in Port Phillip Bay, and in Tasmanian waters, and this pest may reappear in Inverloch in future. Boaties can do their bit by making sure that boats and gear are cleaned to remove any errant hitchhikers.

#### 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.

Invasive Species Cour ABN 27101522829	ncil Membership application form	
Name		
Address		
	Postcode	
Phone (h)	(w)	
email		
Work or voluntary position(s) (if relevant)		
-		
Affiliations		
Membership rates: (all prices are GST inclusive)		
☐ Regular	\$22	
Concession	\$11	
☐ Group/Institution	\$55	
I would also like to make a donation <sup>1</sup> (does not include GST)		
Total:	_\$	
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 - 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 <i>Income Tax Assessment Act 1997</i> .		
Thank you for joining us. Please send this form and a cheque to: Invasive Species Council PO Box 571 Collins St West, Vic. 8007.		
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.