Review of progress towards the National Mimosa Strategic Plan 2006 / 2007

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Executive Summary

Background

A native of Central and Southern America, *Mimosa pigra* was first recorded in Australia at the Darwin Botanic Gardens in the late 1800s. In 1952 a large infestation was discovered at Adelaide River, 100km south of Darwin. Mimosa has since spread to a number of river systems in the Top End and it is now present as far as Legune Station in the west and the Phelp River (Arnhem Land) in the east. Mimosa was discovered on Proserpine's Peter Faust Dam in northern Queensland in February 2001. Mimosa invasion threatens the production, cultural and conservation values of wetlands by reducing productive areas and biodiversity. Mimosa has the potential to dominate wetlands across the whole of northern Australia from Broome Western Australia to northern New South Wales.

National Coordination and funding

The Mimosa Management Committee originally formed in the late 1990s prior to the initial WoNS announcement. A National WoNS Coordinator for *Mimosa pigra* and Athel Pine was appointed in December 2006 resulting in the National Mimosa Management Committee reforming during 2007. Prior to the formation of the NMMC management focussed on, and resulted in the development of effective and enduring partnerships with Aboriginal landholders, government agencies and the pastoral industry in the Northern Territory. The development and implementation of the national strategy has since resulted in on going survey and education/awareness programs being implemented in WA and QLD. Furthermore during 2006/ 07 routine survey by council weeds officers in northern New South Wales has commenced. Investment in Mimosa is from a wide variety of sources including national, state and local government, NRM bodies, industry groups, Aboriginal organisations and communities and pastoralists.

Additional outcomes for 2006/ 07

Mimosa continues to be managed strategically across the current range of distribution in Australia with on-going implementation of 31 major strategic integrated weed management programs in the Northern Territory, with Peter Faust Dam in Queensland remaining the single infestation outside of the Northern Territory. The eradication program at Peter Faust Dam is continuing to reduce the size and impact of Mimosa. Surveillance programs are continuing in Western Australia and Queensland and along the Northern Territory borders enabling the early detection of Mimosa invasions. In 2006/ 07 no new outbreaks were reported and no new catchments were affected in the Northern Territory. On-going aerial and ground surveys in the Northern Territory are enabling continual improvement of control programs. Biocontrol of Mimosa continues to reduce seed production and spread in core infestations with effective agents now established in most of the high priority catchments in the Northern Territory. Numerous education and awareness activities are resulting in improved capacity to map, survey, monitor and control infestations and to detect new incursions.

Future priorities

- Develop a National Communications Plan,
- Raising the profile and importance of on-going surveillance to protect clean areas, NT borders, Queensland, Western Australia and New South Wales from invasion
- Prepare historic information for input into reviewing the national strategy.

Introduction

This report documents progress towards implementing the *National Mimosa Strategic Plan 2001* throughout Australia. It provides evidence for the benefits of a nationally coordinated program demonstrating that this has led to improved stakeholder understanding, involvement and commitment to the long-term surveillance and management of Mimosa in Australia.

Mimosa, its history and impact in Australia

A native of Central and Southern America, Mimosa pigra was first introduced into Australia at the Northern Territory (NT) Darwin Botanic Gardens in the late 1800s. In 1952 a large infestation was discovered at Adelaide River, 100km south of Darwin. It is believed that sand contaminated with seeds was removed from the Adelaide River in the 1950s and used around the Top End in commercial building operations. Mimosa has since spread to some of the main river systems (Finniss, Reynolds, Mary, Daly, East Alligator and South Alligator) in the Top End. It is now present as far as Legune Station in the west and the Phelp River (Arnhem Land) in the east. A Mimosa outbreak was discovered near Proserpine's Peter Faust Dam in northern Queensland (QLD) in February 2001. Mimosa invasion threatens the production, cultural and conservation values of wetlands by reducing productive areas and biodiversity. Mimosa has the potential to dominate wetlands across the whole of northern Australia from Broome Western Australia (WA) to northern New South Wales (NSW) (see Appendix C).

A national solution

The National Mimosa Strategic Plan was developed by the NT government with full support from all states and territories and the Australian Government and was published in 2001. A full time National WoNS Coordinator for *Mimosa pigra* and Athel Pine was appointed in December 2006 resulting in the National Mimosa Management Committee reforming during 2007. Prior to this a part-time officer from DNRETA held the Mimosa position focussing on developing effective and enduring partnerships with Aboriginal communities, including traditional owners and Aboriginal Ranger groups and the pastoral industry in the NT, and supporting the eradication program at Peter Faust Dam QLD, the WA Dept of Agriculture and Food border surveillance program and the Australian Quarantine and Inspection Service (AQIS)/ Weeds CRC community capacity building program in western Arnhem Land. NSW has recently been engaged in order to build Mimosa surveillance into the routine surveys conducted by council weeds officers in northern NSW.

Investment in Mimosa management is being made from a wide variety of sources including national, state and local government, Aboriginal organisations and communities and pastoralists. Funding of $1,078,570 was received for this reporting period. Total funding for the national program to date is $9,406,276 and has been matched or exceeded by project proponents and partners throughout Australia resulting in an excellent return on investment.

Progress to Date

Eradication continues on the isolated Mimosa outbreak at Peter Faust Dam, Proserpine QLD, a program that has been operating since the infestation was first reported 2001. Isolated infestations south of 14° S latitude in the NT are also under eradication programs.

Border surveillance along the NT/ WA border, NT/ QLD border and coastal areas from Broome WA through the Gulf of Carpentaria to Cape York QLD continues to provide early detection and report Mimosa sightings.

Progress to Date (cont)

On-ground control

All Mimosa infestations in the NT are under active control programs. Solid partnerships created between the Indigenous Land Corporation (ILC), Northern Land Council and Tiwi Land Councils' Aboriginal Ranger program, traditional owners and the Dept of Natural Resources, Environment and The Arts (DNRETA), together with capacity building activities, are resulting in improved mapping, monitoring, surveillance and control of Mimosa infestations on Aboriginal Land throughout the NT. Additionally the AQIS/ Weeds CRC project continues to successfully engage Aboriginal communities in western Arnhem Land about the risks of new Mimosa incursions onto their lands as part of an early detection program.

Solid partnerships created between the NT Cattleman's Association and the DNRETA, together with capacity building activities, are resulting in improved mapping, monitoring, surveillance and control of infestations on pastoral land. Property Mimosa plans have been developed and are being implemented for 18 pastoral properties. In addition four properties manage Mimosa but are not part of the program.

Biocontrol

Since 1983, 12 insects and two fungi have been released on Mimosa in Australia. A recent study has shown that the four most effective agents have reduced seed rain and soil seed banks by 90%. The biocontrol program now forms part of an integrated approach to Mimosa management.

Mapping

The National Land and Water Resources audit grid map, developed during the reporting period, is an accurate representation of the distribution of Mimosa in Australia. In addition point/ polygon/ line data underpins this grid information. For both the NT and QLD, mapping is updated annually following aerial and ground surveys. See Appendix C for the national distribution of Mimosa (current and potential) including areas for surveillance, eradication and control.

Goals and achievements in 2006/ 07

1. Informing and Educating

Desired Outcome – Stakeholders are informed and educated about Mimosa, its adverse impacts and appropriate land management strategies for its control.

A wide range of education and awareness activities are resulting in increased awareness and capacity building of pastoralists, Aboriginal rangers, Aboriginal communities and the general public in northern Australia and at Peter Faust Dam in QLD on the identification, impacts, control and risk of spread of Mimosa. These activities are preventing the spread of Mimosa into adjoining areas on Aboriginal land and pastoral properties in the NT and into other adjoining states (WA and QLD) as well as enabling more effective control of infested lands.

<u>AQIS/ NAQS</u>

- Community Training Officer working with Aboriginal communities in response to the spread of Mimosa in western Arnhem Land
- Community capacity building to identify and search for new Mimosa incursions as part of an early detection program

Resulting benefits
Aboriginal communities in western Arnhem Land are undertaking surveillance and control of Mimosa on Aboriginal Lands.

Lead agency – AQIS, Weeds CRC/ ILC
Cooperating agencies/ land managers – NRETA, Aboriginal communities

<u>NT</u>

- Success in gaining $76,500 funding through the ILC to employ a Geographic Information System (GIS) training officer for the Aboriginal ranger program. The officer is employed on a 12 month contract. Activities include:
    - Conducting effective weed survey and mapping programs
    - Liaising with relevant affected communities
    - Providing mapping and survey training to Aboriginal land holders
- Volunteering at public shows, including the Darwin Boat Show, to disseminate information to the general public about the role of Weed Management Branch, the responsibility of land holders under the *"Act"* and providing displays of weed species for identification purposes that include Mimosa (including posters and brochures)
- Planning of a field day is underway for the Southern Daly Port Keats Aboriginal Land Trust in response to Traditional Owners in the Maningrida area becoming reluctant to continue supporting the Mimosa control program in that area. DNRETA Weed Officers are also inviting members from other communities with small to medium sized infestations to show first hand the adverse impact of mimosa if left uncontrolled
- Attending Top End Aboriginal Land Management Employment Strategy (TEALMES) steering committee meetings on a quarterly basis informing on and discussing progress on the co-funded Aboriginal Ranger program ($435,000 Defeating the Weed Menace and $126,000 Indigenous Land Corporation). Meetings are a forum for Aboriginal rangers to report against activities they have conducted on their land in relation to Mimosa management under the Aboriginal engagement program
- Attending the Northern Territory Cattlemen's Association branch meetings on a regular basis. This meeting provides an opportunity to update pastoralists on the status of the $600,000 National Landcare Program (NLP) funded "Development and Implementation of Integrated Weed Management Planning Process for Pastoral Industry, Top End Floodplains" project
- Presentation to students from Batchelor Institute of Indigenous Tertiary Education outlining the biological control of mimosa. Several of the students are also involved in Mimosa control on their traditional land

Resulting benefits
Employing the Indigenous GIS officer has enabled Aboriginal rangers to develop skills in spatial data collection which is consistent with the NT and National weed data collection guidelines. In addition the GIS officer manages the spatial data collected from aerial surveys and through the production of maps, strategic management decisions can be made quantifiably.

Increasing public awareness about current and future Mimosa programs in NT and integrated control options is enabling better on-ground outcomes.

Aboriginal capacity building - Funding opportunities and management issue discussions at the TEALMES meetings is enabling a more collaborative approach to Mimosa management on Aboriginal land. Awareness on the identification of Mimosa biocontrol agents is increasing.

Lead agency – DNRETA
Cooperating agencies/ land managers – Indigenous Land Corporation, Northern Land Council, Tiwi Land Council, Northern Territory Cattlemen's Association

Publications, articles, media coverage – (see Appendix B for further details)
"Watch Out for Mimosa" poster produced in Aboriginal language, Anon (2007a), DNRETA (2007a), DNRETA (2007b), Grace (2006), Keir (2007), Routley & Wirf (2006).

QLD

- The main tool for informing stakeholders about the Peter Faust Dam infestation, including identification, quarantine requirements and reporting of new outbreaks, is through the *Mimosa pigra* Stakeholder Group. The group meets every 3 months informing each other on activities relating to the eradication program. Topics covered during the reporting period were review of risk assessment, washdown facilities, mapping, pig shooting and burning, media and funding. The stakeholders who attend are well informed about Mimosa and interact constructively to adapt management strategies for changing circumstances
- Signage at the boat ramp and at strategic points along the entrance to the lake informs recreational fishers of the quarantine area, Mimosa identification and reporting of new outbreaks
- Media release published in local papers, during low dam levels, informing recreational fishers not to park vehicles on foreshore and on the risks of weed seed spread (see Appendix B)

Resulting benefit – An adaptive Mimosa eradication program is underway at Peter Faust Dam resulting in the progressive reduction of the current infestation and implementing best practice weed seed spread minimisation protocols.
There is minimal risk of spreading Mimosa from Peter Faust Dam into new areas in QLD and interstate.

Lead agency – Mimosa pigra stakeholder group
Cooperating agencies/ land managers – SunWater, QLD DPI&F, Mackay Whitsunday NRM, Whitsunday Shire Council, Cane Growers Association.

WA

Emerging issue
An awareness campaign is needed in WA to enhance the on-going border surveillance program.

2. Preventing Spread

Desired Outcome – To prevent Mimosa from spreading to and impacting on new areas.

National declaration

Mimosa is declared in all states and territories as follows:
NT – Class A & C or Class B & C depending on location under the *Weeds Management Act 2001* (A=to be eradicated south of 14°S latitude, B=spread to be controlled north of 13°S latitude and C=not to be introduced to the Territory)
QLD – Class 1 plant under the *Land Protection (Pest and Stock Route Management) Act 2002*
WA – P1 and P2 state wide under the *Agricultural and Related Resources Protection Act 1976* prohibits movement and aims to eradicate
NSW – Class 1 State Prohibited Weed under the *Noxious Weeds Act 1993* aims to eradicate any incursions. Class 1 are also notifiable weeds
SA – Class 1 under the *Natural Resource Management Act 2004*
VIC – State Prohibited Weed under the *Catchment and Land Protection Act 1994*
TAS – Declared plant (prohibited) under the *Weed Management Act 1999*
ACT - Category 4 (Prohibited pest plant, propagation and supply prohibited) under the *Pest Plants and Animal Act 2005*

Surveillance

Considerable border and coastal surveillance for Mimosa is being carried out resulting in the early detection of any new outbreaks outside of known infestation areas. No new infestations were found during the reporting period.

AQIS/ NAQS

- Regular surveys conducted along a 50 km wide strip of land from Broome, WA through coastal NT, Gulf of Carpentaria to Cape York, QLD providing early detection and reporting of Mimosa sightings
- Weed awareness activities with Aboriginal communities and Ranger groups in western Arnhem Land

Resulting benefits
No new Mimosa sightings were recorded in coastal areas from Broome to Cape York in northern Australia.

Lead agency - AQIS
Cooperating agencies/ land managers – NT DNRETA, Aboriginal Ranger groups

WA

- NT/ WA border surveillance program - check point in place at the WA/ NT border with vehicles, boats and caravans checked for weed seeds. Surveillance carried out as part of routine work undertaken in the rangelands throughout the Kimberley and Pilbara by Department staff (valued at $925,000 each year)
- Pamphlets available at road houses warning about spreading weed seeds
- Aerial surveillance of northern coastal areas carried out for Mimosa as part of feral animal control activities

Resulting benefits
WA free of Mimosa during 2006/ 07. Increasing awareness about the risks of spreading weed seeds is resulting in decreasing weed seeds being imported into WA.
Future priorities – Creating an extension program to raise awareness on Mimosa in northern WA.

Lead agency – Department of Agriculture and Food WA

Surveillance (cont)

QLD/ NT

- NT/ QLD border surveillance – QLD undertook aerial surveys, in partnership with NT NRETA Weed officers along the Gregory, Leichhardt and Nicholson Rivers and most of the tributaries in the Gulf of Carpentaria

Resulting benefits
The border of QLD/ NT in the Gulf of Carpentaria is free of Mimosa.

Lead agency – QLD DPI, NT NRETA

QLD

- Statewide airing of TV commercial for Mimosa (WIN TV) running over 2-3 months
- Annual pest surveys include reporting on any new incursions of Mimosa

Resulting benefits
Queensland is free of Mimosa outside of the Peter Faust Dam, Proserpine.
Lead agency – QLD DPI

NT

- ILC annual helicopter survey for Mimosa

Lead agency – Indigenous Land Coorporation
Cooperating agency – Tiwi Land Council

NSW

- Discussions are underway with the secretary of the North Coast Weeds Advisory Committee regarding capacity building of council weeds officers in northern NSW as part of the national surveillance program

Resulting benefits
Raising the profile of Mimosa along the north coast of NSW will result in improved surveillance and early detection of new incursions.

Reducing spread

The on-going eradication program at Peter Faust Dam, QLD is resulting in the reduction of spread within the infested area. The AQIS program continues to increase community capacity for reporting and controlling Mimosa on Aboriginal lands in western Arnhem Land NT. The NT NRETA program continues to reduce the spread of Mimosa on pastoral and Aboriginal lands throughout NT, whilst biocontrol agents are effectively reducing seed production and spread in core infestations. For further details on the national biocontrol program see Goal 3: Research & Development and for the NT program on pastoral and Aboriginal lands see Goal 4: Impact reduction.

AQIS/ NAQS

- Community Training Officer working with Aboriginal communities in response to the spread of Mimosa in western Arnhem Land
- Community capacity building to identify and search for new Mimosa incursions as part of an early detection program

Resulting benefits
Aboriginal communities in western Arnhem Land are reducing the spread of Mimosa by undertaking surveillance and control of Mimosa on Aboriginal Lands.

Lead agency – AQIS, Weeds CRC/ ILC
Cooperating agencies/ land managers – NRETA, Aboriginal communities

Reducing spread (cont)

NT

- DNRETA, Tiwi Land Council and private enterprise working collaboratively to develop protocols to prevent the introduction of weed species entering the Tiwi Islands. On a regular basis DNRETA Weed Officers conduct vehicle and equipment inspections prior to barging vehicles to the islands, ensuring that a high standard of vehicle hygiene is attained
- DNRETA Weed Officers conduct monitoring and assessment of Mimosa control works along the road network in the Darwin region aiming to objectively measure the effectiveness of the weed control program within the road reserve of nominated roads managed by the NT Department of Planning and Infrastructure
- DNRETA Weed Officers continue to inspect parcels of land under the review and approval process for development applications. Through these inspections recommendations continue to be made to the Development Consent Authority on weed issues that may need addressing, including Mimosa
- Surveys, both aerial and ground, along with monitoring are continuing on an annual basis to determine distribution and density of Mimosa on Aboriginal land ($340,000 Defeating the Weed Menace funding), Pastoral land ($600,000 NLP funding) and Government land enabling the effectiveness of control programs to be measured
- Mimosa biocontrol program continues to assess the impacts and effectiveness of agents under a $446,000 NHT/ Defeating the Weed Menace funded project
- As part of management programs feral management, fire management and grazing management practices are decreasing susceptibility of land to Mimosa invasion.

Resulting benefits
Mimosa distribution and density are being monitored annually enabling adaptive management of infestations from the property to catchment level in the NT.

The likelihood of more Mimosa seed spreading to the Tiwi Islands is decreasing by ensuring vehicle hygiene is adhered to prior to vehicles landing on the island. Through the inspection process, owner operators and private enterprise are becoming more aware of the issues of weed seed spread.

Mimosa control along the road networks around Darwin is effectively reducing infestations and preventing seeding at all monitoring sites. The strategic benefit of this is enormous due to the long life expectancy of mimosa seed.

Integrated Mimosa management strategies are being proactively developed prior to approval of development applications in the NT.

Lead agencies – NT DNRETA, Department of Planning and Infrastructure (DPI), North Australian Quarantine Strategy (NAQS)/ AQIS
Cooperating agencies/ land managers – Tiwi Land Council
Publications, articles, media coverage -
Production of distribution and density maps for Mimosa.
Development of vehicle inspection data-base and inspection certificates.

Reducing spread (cont)

QLD

Implementation of the *Mimosa pigra* spread risk assessment recommendations including -

- Cattle withholding in clean paddocks for 7 days
- Upgrade of wash down facilities
- Pig control to prevent them from spreading seed
- Identifing clean and dirty tracks
- Media articles published in local papers, during low dam levels, informing recreational fishers not to park vehicles on foreshore and on the risks of weed seed spread (see Appendix B)

Resulting benefits

Risks of spreading Mimosa within and from Peter Faust Dam have been mitigated by continuing to implement recommendations from the report "Minimising the risk of spread of *Mimosa pigra* from Peter Faust Dam, Proserpine, QLD May 2006".

Lead agency – Mimosa pigra stakeholder group

Cooperating agencies/ land managers – SunWater, QLD DPI&F, Mackay Whitsunday NRM, Whitsunday Shire Council, Cane Growers Association.

3. Research and Development

Desired Outcome – To further develop the knowledge base for effective and efficient management of Mimosa, especially through application of integrated methods.

National Mimosa Management Committee

The National Mimosa Management Committee oversees the implementation of the *National Mimosa Strategic Plan* 2001. The committee was reformed during 2007 with a teleconference due in early August and face to face meeting in Darwin during late October. There are currently 12 members representing key stakeholders in the NT, WA and QLD. See Appendix A for the list of members. The *National Mimosa Strategic Plan 2001* will be reviewed in early 2008 enabling the independent appraisal of progress to date. The committee will be instrumental in this review process.

Mimosa ecology and eradication

QLD

- Under a $30,000 Defeating the Weed Menace project soil cores were taken to calculate the seedbank in all sections of the research area. Due to the on-going Mimosa eradication program at Peter Faust Dam (since the infestation was first reported in February 2001) there is no seed bank input from fresh mimosa seed. The seed bank studies indicate the length of time necessary to continue eradication efforts
- Plans are underway for genetic studies to compare seed types from NT, QLD and Thailand
- As part of a $246,500 project jointly funded by QLD "Blueprint for the Bush", SunWater and Whitsunday NRM, mapping of all seedlings continues with 83 *Mimosa pigra* plants counted at a 'point in time' across the research peninsula (an area of ~7.5 ha). This was down from 131 plants similarly counted in 2005/ 06. (Plants left for research purposes and as a 'nursery' for biocontrol agents were not included. All research plants and nursery plants have since been destroyed). These counts are made between eradication team visits and show that the number of plants needing to be controlled is declining
- Investigating the establishment of three biocontrol agents; namely *Neurostrota gunniella*, *Coelocephalapion pigrae* and *Malacorhinus irregularis* introduced from the Northern Territory, as an aid to eradication efforts

Resulting benefits –
Mimosa at Peter Faust Dam will be eradicated by ~2021.
The 2006 soil seed bank data for the core infestation area shows an 81% reduction since 2002. If current trends continue, the soil seed bank may be exhausted in ~14 years. Once the seed bank data for the next 2-3 years is processed, a closer decay curve fit may be possible.

Biocontrol agents failed to establish at Peter Faust Dam resulting in abandoning attempts at biocontrol in favour of eradication.

Lead agency – QLD DPI&F
Cooperating agencies – SunWater, Mackay Whitsunday NRM, NT DNRETA (biocontrol project)
Publications – Vitelli *et. al* 2006 (see Appendix B)

National Biocontrol program

Since 1983, 12 insects and two fungi have been released on Mimosa in Australia. A recent study shows that the four most effective agents are reducing seed rain and soil seed banks by 90%. The national Mimosa biocontrol program is reducing plant biomass and seed production leading to a reduction in the spread from core infestations.

- Rearing and release of a new agent, *Nesaecrepida infuscate* was successful under a $206,000 Defeating the Weed Menace funded project

- Approval for the release of *Nesaecrepida infuscata* from quarantine granted by Biosecurity Australia. There was an initial delay in the handing over of the colony to NRETA for mass rearing and release in the Northern Territory due to a fungal outbreak in the colony. This disease was subsequently eliminated, allowing its release from quarantine
- Host specificity testing of *Temnocerus debilis* continues

Resulting benefits
Colonies of *Nesaecrepida infuscate,* an additional biocontrol agent, handed over to DNRETA for mass rearing and release at nursery sites enabling improved management of core infestations of Mimosa in the NT.
Lead agency – CSIRO Entomology

NT
Releasing, redistributing and monitoring biocontrol agents in all high density infestations across NT continues under a $446,000 funded program (Defeating the Weed Menace and NHT Regional Competitive Component)

- Biological control agents released across three catchments in the NT. A total of 8,806 *Leuciris fimbriaria* (leuciris) adults/ pupae were released across three catchments between September and November 2006: Moyle River (2,100), Adelaide River (1,884) and Finniss River (1,822). The rearing culture subsequently died out during the hot/ humid conditions of the build-up to the wet season. Since leuciris was first released in the NT in December 2005, over 40,000 insects have been released. Monitoring of these release sites continues during the course of this project to determine if leuciris has established. In the event that it has, future releases may be possible through a redistribution program. If leuciris has not established, it may be possible to re-import fresh cultures from Mexico
- Monitoring of agent establishment, density and impact continues at six research sites located within the Mary River, Adelaide River and Finniss River catchments. Intensive Macaria density studies were conducted at two sites at Melaleuca Station (Mary River catchment) in February. High numbers of larvae were recorded on Mimosa branches causing significant defoliation – estimated at 80-90% at one of the sites

Resulting benefits
Establishing and redistributing biological control agents is resulting in significant decreases in seed production with up to 90% reduction at some sites. Malacorhinus (root- and seedling-feeding chrysomelid beetle) was found at several sites where it has previously not been recorded. The beetle is now established at sites across four catchments (Mary, Finniss, Adelaide and Moyle Rivers). This includes sites where it has not previously been released.

  - Combined impact of biological control agents causing increased defoliation of mimosa
  - Approved release of *N. infuscata* (damages roots) adds another biological control agent to the suite of natural enemies targeting Mimosa

Lead agency – DNRETA
Cooperating agencies/ land managers – CSIRO, Land managers, Northern Land Council, Wangamaty Landcare Group, Queensland Mimosa pigra Stakeholder group

Publications, articles, media coverage
Updated NT "Biological Control of Mimosa" information sheet, three articles published in "Weed All About It" DNRETA newsletter, two papers presented at the 15th Australian Weeds Conference, a paper published in Biocontrol Science and Technology and one CSIRO press release (see Appendix B for details).

4. Impact Reduction

Desired Outcome – To reduce the current adverse impacts of Mimosa infestations.

Sustainable land management programs, via property mimosa plans, are in place for 18 pastoral properties and 12 Aboriginal ranger groups covering the majority of infestations in the NT. In addition four pastoral properties continue to manage Mimosa outside of the above programs.

NT

- Surveys, both aerial and ground, along with monitoring are continuing on an annual basis to determine distribution and density of Mimosa on Aboriginal land, Pastoral land and Government land enabling the effectiveness of control programs to be measured
    - Data recorded, using WoNS core attributes, for all pastoral properties involved in the NLP funded project
    - Data recorded for all Aboriginal Ranger locations
    - Data recorded for the road network in Darwin region

Pastoralist program

- Control works, guided by management agreements, continue on 18 properties (including 16 doing aerial spraying) under the $600,000 NLP funded project. Areas treated during the reporting period were -
    - Tipperary 10,000 Ha
    - Twin Hills 8,000 Ha
    - Melaleuca 3,000 Ha
    - 15 smaller-scale infestations
- Seven properties were inspected following aerial control with a further nine due for inspection during this dry season
- Ten seasonal work plans were reviewed during the reporting period
- Visible evidence of successful management is being observed
- Attending the Northern Territory Cattlemen's Association (NTCA) branch meetings on a regular basis provides an opportunity to update pastoralists on the status of the "Development and Implementation of Integrated Weed Management Planning Process for Pastoral Industry, Top End Floodplains" NLP funded project

Lead agency – NT DNRETA
Cooperating agencies/ land managers – Northern Territory Cattlemen's Association, Pastoral property managers

Aboriginal Ranger program

- Control work continues under the co-funded $435,000 Defeating the Weed Menace and $126,000 Indigenous Land Corporation Aboriginal Ranger program
    - 372 Ha treated at Western Arnhem Land, Acacia Larrakia, Malak Malak, Wudikupildyerr, Peppimenarti, Wadeye and Bulgul
- Attending Top End Aboriginal Land Management Employment Strategy (TEALMES) steering committee meetings on a quarterly basis informing on and discussing progress on the Aboriginal Ranger program. The meetings are a forum for Aboriginal rangers to report against activities they have conducted on their land in relation to mimosa management under the Aboriginal engagement program
- Maps produced to assist in targeting on-ground operations for the coming dry season

Lead agency – DNRETA
Cooperating agencies/ land managers – Indigenous Land Corporation, Northern Land Council, Tiwi Land Council, Aboriginal communities

Resulting benefits
Work continues in reducing the size of Mimosa infestations in the NT.

Publications, articles, media coverage
Article ”Putting mimosa under pressure in Top End” published in March 2007 Australian Landcare Magazine

QLD

- Survey and control of *Mimosa pigra* at the Peter Faust Dam continues at a rate of one circuit every two months

Resulting benefit
Control continues to prevent *Mimosa pigra* from maturing and seeding resulting in depleting the seed bank and thus the life of the eradication program.

Lead agency – QLD DPI&F
Cooperating agencies - NR&W, Mackay Whitsunday NRM, SunWater, Whitsunday Shire Council

Appendix A - National Mimosa Management Committee Members

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Kate Hadden
Secretary Land and Resource Management

NT Local Government Association
Jaemie Page
Councillor for Coomalie Community Government Council

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Australian Government
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Vegetation Management Policy Officer
Department of the Environment and Water Resources

John Thorp
National Weeds Management Facilitator

Appendix B – Publications, articles, media 2006/ 07

Anon (2007a). Putting mimosa under pressure in Top End. Australian Landcare Magazine, March.

Anon (2007b). Mystery fungal bug delays debut of weed-eating beetle. Canberra Times, 13th March.

CSIRO (2007) - media release on a new biocontrol agent, *Nesaecrepida infuscate* (http://www.csiro.au/news/ps2va.html) 9 March.

DNRETA (2007a). Tiny beetles have a big job ahead of them. NT News, 12th March.

DNRETA (2007b). Articles in World Wetlands Day feature, NT News, February.

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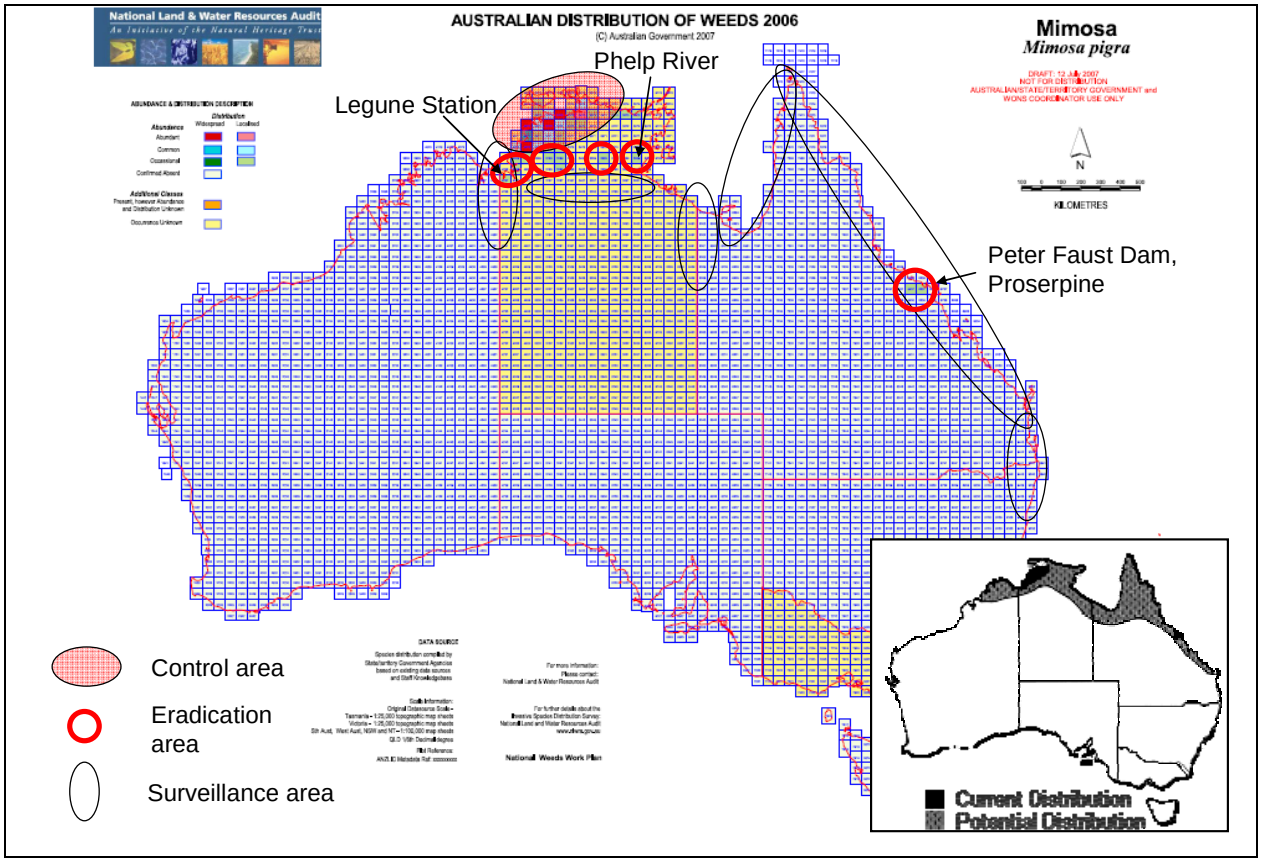
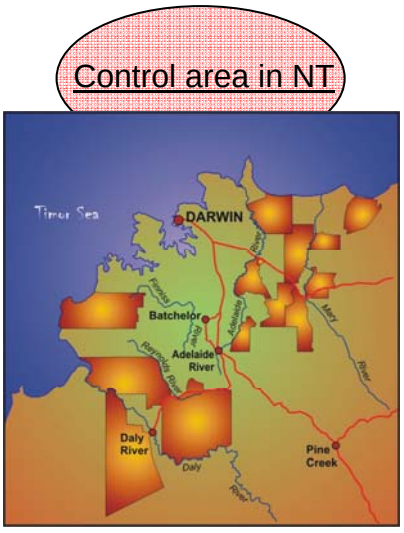
Appendix C – Mimosa distribution and management in Australia





18 Properties involved in the NT pastoralist program for Mimosa
(co-funded by National Landcare Program, NT Cattleman's Association & NT NRETA)