



TASWEEDS



AUTUMN 2007 NUMBER 34

- NEWS
Who is CAWS? **4** Read about the objectives and roles of the Council of Australasian Weed Societies

- ON THE GROUND
The Spider **6** An innovative approach to tackling hard-to-reach weeds

- BEST PRACTICE
Horse poisoning **14** You can lead a horse to pasture but be careful what she eats

- WEED PROFILE
Khasia berry **17** A Himalayan beauty transforming forests on the West Coast

- STRATEGIES & PLANNING
Policy and strategy **18** Tasmania's biosecurity policy and strategy explained



FROM THE PRESIDENT



Andrew Laird

Welcome to the Autumn edition of Tasweeds. Hopefully, everyone has had a good and productive summer. Now, with some luck, all regions will get some solid autumn rainfall to relieve the pressures of the drought. Good rain also means we can all take a break from treating weeds, for five minutes at least!

The AGM

The Annual General Meeting of the TWS was held at the Launceston Tram Sheds on Friday, 23 March. The executive remained relatively unchanged (un-scathed?). Contact details of the executive can be seen in the box to the left and will be updated on the TWS website. Thanks to all those members who were able to attend. I would especially like to thank Christian Goninon (State Manager DPIW Weeds Section), Andrew Crane (DPIW Regional Weeds Officer South), Jonah Gouldthorpe (NRM Regional Weeds Officer South), Greg Stewart (NRM Regional Weeds Officer North) and Greg Taylor (Cradle Coast NRM Regional Weeds Officer) for their informative and interesting presenta-

tions about the progress of weed management in Tasmania. The day went very well with a variety of motions passed by the meeting including:

- the engagement of Lynne Ryan to provide professional secretarial services for TWS
- increasing cost of membership to TWS
- formulating a Society response to the closure of the Cooperative Research Centre for Australian Weed Management
- investigating means of ensuring regular income and the long-term financial viability of the Society

TWS Executive Committee

PRESIDENT

Andrew Laird 0437 743 763
alaird@westcoast.tas.gov.au

VICE PRESIDENT

Peter McGlone (03) 6234 3552

TREASURER

Vacant

SECRETARY

Paul Adams (03) 6233 8269
paul.adams@forestrytas.com.au

REGIONAL REPRESENTATIVE (NORTH WEST)

Vacant

REGIONAL REPRESENTATIVE (NORTH)

Jamie Cooper jamie@yak.com.au

REGIONAL REPRESENTATIVE (SOUTH)

Vacant

NEWSLETTER EDITORS

Matt Baker (03) 6226 1029
matthew.baker@tmag.tas.gov.au

Natalie Conod (03) 6226 2776
natalie.conod@utas.edu.au

Greg Stewart (03) 6333 7778
gstewart@nrmnorth.org.au

PUBLIC OFFICER

Peter Franklin peterfranklin@iprimus.com.au

2007 – Year of conference planning

2007 is the “Year of Conference Planning” as we prepare for the second Tasmanian Weeds Conference in 2008. All members are encouraged to participate in planning the conference and are asked to contact the society if you wish to join the conference organising committee. Additionally, in 2007, TWS is committed to providing one educational and one ground based weed management activity for members and interested people in each region. So there’s plenty on and plenty to get involved with. Please make yourself known to the society if you wish to become more involved.

In this edition

This is another jam-packed edition of Tasweeds, so look out for articles on the seeding willows project. *Berberis darwinii* and *Cotoneaster simonsii* get more attention than they’d like in the weed profile section, and we have reports on the Threatened Species Community Grants Programme and how to apply for a Council of Australasian Weed Societies travel awards. Also featured is an article on a herbicide management software package called PIRI (Pesticide Impact Rating Index). This is a decision mak-

ing assistance tool for the application of chemicals developed by CSIRO. We also learn about the dangers to horses from certain (very nasty) weeds and what tools we can use to identify aquatic weeds. All this and much more weed management action coming to you in this edition of TASWEEDS (and remember to get your weed related articles to TWS for publication).

Thanks everyone.

Joining TWS

The benefits of joining the Tasmanian Weed Society include:

- An information packed quarterly news-letter TASWEEDS
- A forum to discuss weeds with people who actually understand
- Regional field days and work shops on topics of interest
- An opportunity to meet and make valuable contacts

It is easy to apply for/renew membership. Simply download and print the membership form from www.tasweeds.org/htm/joiningform.htm, complete details as required, and forward with a cheque or money order to the address below.

Cost of Membership
 Student \$10.00
 Ordinary \$25.00
 Corporate \$55.00

Please forward form and remittance to:
 The Secretary
 Tasmanian Weed Society
 PO Box 4608
 Bathurst Street
 Hobart TAS 7000

Enquiries:
secretary@tasweeds.org

About TASWEEDS

Tasweeds is a quarterly publication of the Tasmanian Weed Society Inc.

Editors: Matthew Baker & Natalie Conod
 Design and Layout: Timm Newlands and Matthew Baker

Printer: Printing Authority of Tasmania, 123 Collins St, Hobart

Readers are free to circulate and reproduce any material in Tasweeds. We ask that authors/sources of information are acknowledged.

All members of the weed community are encouraged to submit articles to Tasweeds.

Cover images (by Matthew Baker):
 • *Hieracium aurantiacum* (hawkweed)
 • Grass

Contents

From the President 2

News

The Council of Australasian Weed Societies (CAWS) and CAWS travel awards 4

14th Biennial NSW Weeds Conference 5

Threatened Species Network grants program 5

Industry

Southern invasive plant forum and stakeholder meeting 5

On the Ground

Spider reaches out to defeat the weed menace. 6

Tackling the seedling willow threat. 8

Ragwort control in Kingborough. 9

Tasmanian Asparagus Weeds Control Program 2006 10

Sea spurge in the sights of wilderness weed warriors 11

Regional Weed Management

NRM North tackles high priority weeds 12

Cradle Coast NRM spreading the weed message 12

Bio Links Project update 13

Best Practice

Plants and horse poisoning 14

Pesticide Impact Rating Index (PIRI) 16

Weed Profile

Khasia berry (*Cotoneaster simonsii*) 17

Strategies & Planning

Policy and strategy 18

New Gorse Coordinator for WoNS 19

Publications 20

Who is the Council of Australasian Weed Societies?

At the state level weed societies make great efforts to inform, inspire, represent and assist their communities with the ongoing management of weeds. At the national level the interests and aspirations of state weed societies are represented by the Council of Australasian Weed Societies (CAWS). CAWS is an independent body that can express national and regional views on all issues relating to weeds and their management. The Council is composed of delegates from Australian state weed societies and the Plant Protection Society of New Zealand.

CAWS has several key objectives:

- to encourage and foster the study and promotion of weed science and technology in Australia and New Zealand and, in particular, to: provide, for member organisations, a representative voice on matters pertaining to weeds and weed science and technology, and to assist in the co-ordination of the activities of member organisations
- encourage a wider interest in weed science and technology by promoting the investigation of all aspects of weeds and their management
- encourage the formation of weed societies within areas of Australia where they do not exist
- encourage educational organisa-

tions, particularly at tertiary levels, to provide adequate training in weed science and technology

- encourage continuing training for weed scientists, technologists and others involved with weeds



To fulfill these objectives CAWS encourages and recognises excellence through awards (Medal for Leadership, Annual Student Travel Award, Annual Early Weed Scientist Travel Award, Annual Most Weed Wise Nursery Award), develops policies on science, technology, the environment and education through standing and ad-hoc committees, collaborates in reviews and inquiries, sponsors workshops and conferences (in particular the Australian Weeds Conference) and supports the Australian journal, "Plant Protection Quarterly" and other

publications.

CAWS is an Associate Member of the International Weed Science Society and is affiliated with the European Weed Research Society and the Asian-Pacific Weed Science Society.

The Council of Australasian Weed Societies (CAWS) was known as the Council of Australian Weed Societies (CAWS) before the Plant Protection Society of New Zealand became a Council member in 2006. Prior to that it was known as the Council of Australian Weed Science Societies (CAWSS) until 2003 when the Council dropped Science from its name to assist in recognising the diversity of personnel involved in weed management.

For more information or to download policies or award criteria go to the CAWS website at <http://home.vicnet.net.au/~weedss/>.

Welcome to TWS

The Tasmanian Weed Society would like to warmly welcome our newest members:

- Janet Smith
- Feral Management Solutions
- Forestry Tasmania

Council of Australasian Weed Societies – Travel Awards

Applications are invited from students and early career weed scientists to attend national or international conferences, or for specific overseas study tours of a short duration. The applications are to be submitted to CAWS via affiliated societies, such as the Tasmanian Weed Society.

Annual Student Travel Award

The Annual Student Travel Award will be made to undergraduate, Master, PhD or other postgraduate students, or those who have completed their studies in the previous twelve months at the date of application. An early career travel award is available for those who have completed their studies less recently (see below). Those studying in the fields of agriculture, botany, biology, ecology, horticulture and forestry or related subjects, with some focus on weed science are encouraged to apply. The value of this award is \$3,000.

Annual Early Career Weed Scientist Travel Award

The Annual Early Career Weed Scientist Travel Award will be made to early-career weed scientists who have, at the date of application, completed their last degree (undergraduate, Master, PhD or other postgraduate degree) within the last five years. Applicants will also have commenced employment in any branch of weed science. The value of this award is \$2,000.

Applications will normally be accepted until May 1 for consideration each year. This period may be extended at the discretion of the committee.

Application forms and further information are available online at <http://home.vicnet.net.au/~weedss/> or from the TWS.

14th Biennial NSW Weeds Conference

Weeds, People and Partnerships
University of Wollongong
24 – 27 September 2007

The program will feature outstanding speakers, a trade display and an expo, with half-day field trips providing a practical aspect to the conference. Some of the many topics to be covered in the technical program include:

- Working with the community
- New and emerging weed threats
- New advances in weed technology
- Regional case studies
- Legislation; and funding opportunities for weed control

For more information contact:

Weeds 2007 Conference Secretariat
C/- ICE Australia P/L
183 Albion Street Sydney,
NSW 2010 Australia
tel: +61 2 9368 1200
email: weeds2007@iceaustralia.com
www.weeds2007.com.au

Threatened Species Network grants program

More than 330 on-ground conservation projects have been funded over nine rounds of the Threatened Species Network Community Grants Program, enabling community groups right across Australia to help save threatened species and ecological communities.

Managed by the Threatened Species Network (TSN), the grants program was established to support and inspire communities to conduct on-ground work for the ongoing health of our natural environment, specifically targeting the needs of nationally threatened species and ecological communities.

Funding is provided for activities such as:

- Habitat restoration
- Weeding and feral animal control
- Monitoring and surveying species populations
- Fencing; and fire management

The application period for Round 10 of the TSN Community Grants Program is now open. Applications will close 5pm Friday 1 June 2007.

For more information visit:
<http://wwwf.org.au/ourwork/species/tsngrants/>

Don Defenderfer
State Landcare Coordinator,
Tasmania

Call for articles – Tasweeds needs you!

Articles are needed for the next edition of Tasweeds. We encourage you to write an article about an interesting weed topic. Email (with photos) to: Matthew.Baker@tmag.tas.gov.au, Natalie.Conod@utas.edu.au or gstewart@nrmnorth.org.au.



ROAD & LAND REHAB

Gorse & Scrub Control

To maximise the use of your asset,
use our methods of permanent
gorse and woody weed control.

Bruce Knight

1 McLeod Avenue, Devonport Tas 7310 Ph: (03) 6424 1500

Southern invasive plant forum and stakeholder meeting

The Nursery and Garden Industry of Tasmania (NGIT) held an invasive plant forum and stakeholder meeting on March 9 at NGIT's base – Clarence TAFE.

The stakeholder meeting was the first in a series that will enable stakeholders to work together in the development of agreed weed lists and working strategies. These lists will then be supported and promoted by accredited retail nurseries and NGIT members, both retail and production. This is the first step in establishing the Tasmanian Nursery Industry as a proactive leader in the area of invasive plants. Other topics discussed included the production of a 'Grow Me Instead' booklet for the Tasmanian Nursery Industry. This will be based on the national booklet but will focus on Tasmanian specific invasive plants as well as the 'Grow Me Instead' plants.

The Southern Invasive Plant Forum was very well attended with participants from a number of government departments, TAFE, and retail and production nurseries. The good turnout highlights the importance of the invasive plant issue to our members and the industry in general. The three speakers; Andrew Laird, Robert Chin and Andrew Crane gave informative and passionate presentations outlining how they intend to work with industry through NGIT to tackle the issue of invasive plants. NGIT thanks all three speakers for the time and effort they have put into both the northern and southern Invasive Plant Forums and their vital role in addressing this topical issue.

Chris Bobbi, NGIT

ON THE GROUND

Di Harris
REGNANS ENVIRO
CONTRACTING

Spider reaches out to defeat the weed menace

Like a bush regenerator's fingernails, cliffs and quarries also accumulate pockets of dirt in nooks and crevices, and anywhere that happens you can be sure the weeds will follow. And so they did on the cliff face at Cornelian Bay, Hobart, flourishing and multiplying in the way that weeds do best until there was a pretty good coverage of cotoneaster, boneseed, African boxthorn and red valerian, safely inaccessible to those who would dearly love to see them blitzed. But how to achieve this without losing anyone over the edge or damaging the infrastructure?

This was the question posed to Regnans enviro contracting when the Cornelian Bay Bushcare Group were successful in gaining an Envirofund grant to help them with several projects, one of them being the clean-up of the cliff face from the beach at the head of the bay to the seaward end of the point, a distance of about 550m and a height of around 10m.

In June 2006, we were asked to research the 'best' method of attack to clear the cliff face of the above weeds, spray the weeds on the top of the cliff on the danger side of the walking track, and remove the cut debris from the site without it floating away on the incoming tide. Yes, the stony base of the cliff is covered almost right to the edge of the cliff except at the spring tides which only happen at fortnightly intervals. Only then does a wide enough swathe of the 'beach' become uncovered sufficiently for work to be carried out from the base of the cliff. So we did a bit of brainstorming:

- high pressure herbicide spray
- abseiling down to the weeds
- using a crane at the top and a ladder at the bottom
- using a floating pontoon to remove debris

But each of these had disadvantages:

- the cliff structure is rather fragile so abseiling would dislodge bits and pieces as well as being very tedious having to re-set many access points, carrying tools and manhandling the cut stuff out of the way, some of which was pretty sturdy
- access for a multi-ton crane at the top is very restricted
- ladders are notoriously dangerous to work from
- using a boat is difficult to manage when you want it to be afloat and aground at the same time and the mass of sharp oyster shell was a deterrent to landing apart from the very slippery terrain to carry armfuls of debris across.
- the spray option was never really a serious one.



The Spider at full extension ready to pounce on an unsuspecting weed (Photo by Sonya Stallbaum)

A long-legged approach

Enter the spider, an EWP (elevated work platform) with a potential 17 m lift that ran on tracks, was around 2.5 tonnes, only 1200 mm wide but with legs that could be individually swung out and manoeuvred to create a level and stable work platform; the Omme 1750 RD Lift from Denmark - colloquially known as the Spiderlift.

What a great little machine. It looked as though it could be the answer to all the criteria we needed to fulfil and so we had it go through its paces at the hire depot. It confirmed that all the different aspects of the job could, in theory, be fulfilled with the one machine in much greater safety and less damaging than any of the other methods. We could even utilise the spider to remove the cut debris.

Now we just had to convince the clients that this was the way to go, get ourselves certified to use the machine and get on with the job.

Putting the theory into practice

A peculiarity of the Hobart tides meant that for weeks we couldn't use the low tides we needed because they always took place well outside of work hours, usually in darkness. When they were predicted to come at the right time of the day, in October, it turned out that the machine was already booked out on the days we needed it and then for a further solid two months, so we missed all the possible low tides until after Christmas. And the next good tide was New Years Day, so it wasn't until mid January that we finally got started on a job that was meant to be finished by November.

But at last the day came and we trundled the machine down the beach and around the corner at the base of the cliff, and here we nearly came to grief before we'd even started when the machine slithered over the slippery rock shelf and tipped into a boggy bit. Getting it out, thanks to the expertise of Sherrin Hire's operator who was minding us for a while to make sure we were competent in its use, was a valuable lesson in what might happen and some useful methods for getting out of tricky situations (which we had to use in earnest a couple more times when the sand surface of the beach suddenly gave way). Somewhat chastened, we continued, with the machine lurching over the uneven ground in what looked a most alarming manner, but it took it all in its stride and by the time we'd rounded the point we were feeling much more competent at handling the beast and reading the ground ahead.

Now came the actual business part of the exercise removing the weeds and happily this went really well. The manoeuvrability of the machine to get the operator right to the spot in relative comfort was delightful. The frequent moves required gave us plenty of practice in setting up level and becoming familiar with all the controls and after a couple of hours we were deemed fit enough to go it alone.

The window of opportunity on each usable day was only 4.5 hrs time actually on the beach, allowing for a margin of error to get the machine safely back to dry land so the work was very concentrated and preparation a pretty important part of it all. Just driving down to the point took nearly an hour one way although this time decreased a little as we worked back towards the start. Additional time on the day was also required to set up and pack down. The Spider was left on site near the beach for consecutive day's work.

Another two days went by and we were really getting into the swing of things until disaster struck just as we were driving out at the end of the third day's session, which coincided with the end of the working day. One of the rather worn tracks (they were due for replacement on completion of this job) got hooked under a lip on a rock ledge which threw it off its guides and jammed it against the body of the machine.

With the tide now rising, we sprang into action to use everything at our disposal to try and get it back on line but it was just too tightly jammed and we had to make an emergency call to the hire company to send someone over. This they did - fortunately, the engineer wasn't already halfway to the lakes, fishing - and he was with us in about fifteen/twenty minutes. With his arrival and a good assortment of tools and expertise, it was still no easy task to get the track back on but it was finally accomplished just about the time the water was lapping around the engineer's toolbox. Thanks to our margin of error we got back to solid ground home and dry. Now we just had another delay while waiting for the new tracks to arrive, but the final day, a month later, went without hitch and the job was completed without further incident.

ON THE GROUND



Glenn Szalman of Regnans enviro contracting "walking" the Spider via remote control (Photo by Di Harris)

Acknowledgements

Civic Solutions, in particular to Paulus Toonen and Brian Lumb, for having faith in us, and being flexible enough to duck and weave as problems arose, as well as being very supportive throughout.

Sonya Stallbaum, Envirofund Officer, who dealt with all the delays with equanimity and smoothed the way for us to continue to the finish.

Sherrin Hire, for their handy little machine, excellent tuition for its use and dealing speedily with any queries or problems as they arose.

ON THE GROUND



Sam Smee

TASMANIAN LAND & WATER
PROFESSIONALS

Tackling the seedling willow threat in Tasmania

While Tasmania's focus has primarily been on the crack willow, another willow species slipped under the radar, built up numbers and was poised to wreak havoc. This willow is the wild or seeding pussy willow (*Salix cinerea*).

Not that it is a recent entry to Tasmania; an old stand planted as a windbreak was found to be 40 years old. It is only in the last few years, however, that we have noticed it seeding around the landscape. With alarming stories emerging from Victoria and New South Wales about how this willow can dramatically colonise rivers, lakes and wetlands, we knew we had a potential threat on our hands.

Luckily, we were not too late to act; the willows were known to occur at only three sites in Tasmania and in relatively small numbers. We still had a real chance of eradicating this weed from the State. Recognising this, in 2006 the Australian Government's Defeating the Weeds Menace programme funded a 3-year project to make it a reality.

Six months on and many mapping hours under our belt, we have found a lot more pussy willows than first known (but isn't that always the way). We still believe eradication is possible due to the fact that the seeds are only viable for such a short time (6–8 weeks). And the 3-year time frame enables us to conduct the follow-up control so vital for long-term control.



The preferred method of control – drill 'n' fill
Photos by Sam Smee



The team in full swing at one of the many Queenstown pussy willow sites

One of our biggest challenges has been in differentiating from the allied true pussy willow (*S. x reichardtii*); a common garden species and not a declared weed. This hybrid is virtually identical with *S. cinerea*, which makes mapping and public awareness activities problematic.

At Queenstown, we encountered very large numbers of pussy willows, many more than could be controlled within budget. When mapping, performed during the August–September flowering period, we recorded sex and found 90% of

trees were male (male and female flowers occur on separate trees). A decision was then made to only control the female trees. This has necessitated extremely detailed mapping, recording and tree marking, but will enable us to effectively eliminate the seeding threat with the resources available.

During writing, we are finishing control for the season at Queenstown. This too has not been without issues. Mud, rain and leeches are par for the course, but many trees occur along old fence lines and the resulting mess of trunks, steel posts and wire makes removal a costly and dangerous task. Local support has been fantastic, with West Coast Wilderness Railway donating labour and equipment, and Copper Mines of Tasmania donating \$5,000 cash towards control.

If you know of any pussy willows that you think may be seeding, please let us know. For more information visit the webpage www.tlwp.com.au/willows.htm, or contact me on (03) 6234 2939 or sam@tlwp.com.au.

Ragwort control in the Kingborough municipality

Kingborough Council, in conjunction with the Bruny Island Primary Industry Group undertook a ragwort (*Senecio jacobea*) control program in the Kingborough municipality during November and December 2006.

Discussions between the two parties resulted in Kingborough Council donating large plastic bags to landowners to pull ragwort plants from their property. Council staff and trucks then collected the filled bags from these properties, and disposed of them in the landfill section of the Barretta Waste Transfer Station, south of Margate.

Over 1000 plastic bags were disseminated within the Kingborough community, and most of those to Bruny Island. Just think of the number of seeds contained in those bags that wont be germinating in the coming years!

Ragwort is listed as a Zone B weed in Kingborough under the *Weed Management Act 1999*, and is listed as having a widespread distribution throughout the municipality. Management measures listed in the Ragwort Statutory Weed Management Plan for municipal areas listed as Zone B are for:

- protection of specified areas within municipal boundaries
- containment within municipal boundaries
- the prevention of spread to Zone A municipalities

Although ragwort is listed as a Zone B weed in Kingborough, it has been recognised by Council as being a high priority weed with a view for eradication.

Ragwort is found in several localised areas of Kingborough including Allens Rivulet, Margate, Kettering, Middleton and Gordon. The greatest infestation of ragwort in Kingborough is on south Bruny Island, and in particular, on the properties of farmers and graziers in the area.

The momentum for Council to co-ordinate the ragwort control program came initially from the Bruny Island Primary Industry Group. Members of this group participated well in the initial ragwort pull, and have pledged on-going support for future ragwort control measures.

It is envisaged that the future ragwort control program throughout Kingborough will involve encouraging landowners to spray ragwort in autumn when plants are in their rosette stage, and follow up hand-pulling and bagging in spring and summer before seeds have been set.



Ragwort (*Senecio jacobea*)
Photo by Greg Jordan

ON THE GROUND

Richard Greenhill
BUSHCARE OFFICER,
KINGBOROUGH COUNCIL



Contact Kerry Colgrave

79 DIAL RD PENGUIN 7316

PHONE/FAX (03) 64 371 751/

MOBILE 0407 303 130

email colspray@bigpond.net.au

Colgrave Weed Management & Services

All types of weed control & eradication, including spraying, cut & paint, & removal.

- State of the art equipment.
- Using best practice to protect the environment.
- GPS Waypoint Marking & Mapping Systems.
- Features/ 4 Tonne Mitsubishi Canter Tip Truck
- Twin Tanks (2050 L and 330 L) Fully certified by weights & measures
- Triple reel Quick Spray Unit with capability of reaching distances of 400 m.
- Tanks can be removed from truck within ten minutes revealing tip truck for cartage & removal.
- Qualified in chainsaw & falling, brushcutting, lopping, road traffic control.
- Insurance \$10 million public liability

OUR BEST PRACTICE IS YOUR BEST INTEREST

ON THE GROUND

Jamie Cooper
FERAL MANAGEMENT
SOLUTIONS



*On the prowl for asparagus weeds
Photo by Jamie Cooper*

Tasmanian Asparagus Weeds Control Program 2006

Bridal creeper (*Asparagus asparagoides*) and asparagus fern (*Asparagus scandens*) are significant threats to biodiversity in Tasmania, particularly, on the Bass Strait islands where a number of species listed as rare and endangered are directly impacted upon.

Bridal creeper is listed as a Weed of National Significance (WoNS) and both bridal creeper and asparagus fern are declared plants under the Tasmanian weed legislation. Control of asparagus weeds in Tasmania is a national priority, with eradication deemed feasible with sustained effort.

A significant effort controlling asparagus weeds on Flinders Island began in 2002 with National Heritage Trust funding being made available to assist with the control program for that year. Subsequent control efforts have been largely undertaken by volunteers, supported by landholders, government agencies and industry.

In 2006, with funding from the Federal Department of Environment and Heritage, a group of volunteers supported by the Tasmanian Parks and Wildlife, Feral Management Solutions, Furneaux NRM and Woodstock Forest Services, continued the control program. Twelve volunteers, with the supporting organisations, covered 487 hectares in 12 days, with the majority of infestations controlled across all land tenures.

The program has had enormous success with only a few mature plants found in some areas. As both bridal creeper and asparagus fern are bird-dispersed, annual areas surveyed are not expected to decrease over the next few years to enable any residual seed germination to be controlled. Success will be measured as density reduction, and not as a reduction in area surveyed.

Due to the low population base and limited resources on Flinders Island, the community has had difficulty in managing some of its more invasive weeds that thrive in the alkaline soils and maritime climate. Lack of awareness of the impacts of environmental weeds in the past has also contributed to the spread of plants, such as bridal creeper, from property to property. The local NRM facilitator, along with the Furneaux Weed Strategy Group, has achieved much in heightening the awareness of environmental weeds in the region.

Eradication of asparagus weeds from Flinders Island is achievable, however, it will require:

- A fully resourced annual control program with united support from a number of organisations.
- Long term follow up of seedling emergence from treated sites.
- An increased education and community awareness program.
- Comprehensive community based control program for residential blocks in Lady Barron.
- Increased absentee landholder participation.

Acknowledgements

The following people and organisations are acknowledged for their contribution this year. Without their assistance at the last moment, we would have lost a number of years of effort.

- Department of Environment and Heritage
- Dennis Gannaway (National WONS Coordinator - Bridal creeper)
- Wayne Warren (Parks and Wildlife Service - Flinders Island)
- Wayne Dick (Parks and Wildlife Service - Flinders Island)
- Robyn Cox (NRM facilitator - Flinders Island)
- Jamie Cooper (Feral Management Solutions)
- Roger Grimes and Rob McLelland (Woodstock Forest Services)
- Twelve motivated volunteers

Sea spurge in the sights of wilderness weed warriors

Eight highly experienced wilderness bushwalkers and weed controllers headed into the remote southwest coast of Tasmania for 10 days of targeting the coastal weed sea spurge.

The group was flown from Strahan to the Mainwaring River and worked their way south to Low Rocky Point, a distance of approximately 30 km.

Strahan's Senior Ranger, Chris Arthur said the project is part of the weed management program for the Tasmanian Wilderness World Heritage Area (WHA).

"Sea spurge and marram grass are the two biggest weed threats to the World

Heritage Area and this project will be a major boost to weed control in this part of the WHA," Chris said.

"The two weeds can rapidly change the shape of beaches and dune systems, impacting on beach nesting birds and increasing beach erosion."

Six of the volunteer weed warriors were from New South Wales and two were students from the University of Tasmania.

They are all highly experienced bushwalkers, which is important given that they were required to be totally self-sufficient while working in one of the most remote locations in Tasmania.

Amongst the New South Wales group was World Heritage Area Consultative Committee member Geoff Luscombe. Geoff works for the New South Wales National Parks and Wildlife Service as regional manager for the Blue Mountains, an area where volunteers have a big role in remote area weed management.

Chris said the group removed sea spurge plants by hand and record the locations of sea spurge and marram grass infestations with GPSs.

"The timing was critical because by the end of February, the sea spurge would have set seed. Each plant can produce thousands of seeds so this will have a major impact by reducing the number of new plants that would have become established," he said.

"It's a big boost to the weed program. The efforts of eight people for 10 days on this one project is particularly valuable at a time of the year when our staff are often involved in other priori-

ties such as bushfires.

Chris said the project has also received a boost from former Parks and Wildlife Service staff member Jon Marsden-Smedley.

"Jon, a keen bushwalker, walked the southwest coast from Cape Sorrell to Recherche Bay over 42 days in December and January. He recorded weed infestations by GPS and so we know exactly where the infestations occur."

Volunteers continue to make a major contribution to management of Tasmania's parks and reserves. Last year they contributed 50,000 hrs of work in projects as varied as hut wardens, walking track maintenance, campground hosts, historic heritage projects and visitor surveys.

Source: Department of Tourism, Arts and the Environment intranet news



Sea spurge (*Euphorbia paralias*)
Photos by Matt Baker



ON THE
GROUND

REGIONAL WEED MANAGEMENT

Greg Stewart
WEEDS COORDINATOR,
NRM NORTH

NRM North tackles high priority weeds

NRM North is implementing several on-ground weed management projects that address the high-priority weeds that are listed in the 'Weed Action Plan – Northern NRM Region'. The Action Plan includes a prioritised list of about 80 weed species that occur in the northern region.

Bridal creeper and asparagus fern are rated as three and five respectively. These two species will be dealt with under an eradication program that NRM North will run until July 2008.

The weed species that is listed as forth priority in the Northern NRM Region is *Berberis darwinii*. The species is only known to occur at four small locations near Scottsdale and Bridport, growing in areas of native bushland.

NRM North plans to utilise the services of a contractor to undertake the spraying component and will use a 'Work for the Dole' team to do 'cut & paint' or 'drill & fill' methods of control adjacent to creek lines. The successful eradication of this species from these areas will rid the Northern NRM Region of one more nasty, invasive environmental weed species.



Darwin's barberry (Berberis darwinii)
Photo by Tim Rudman

Berberis darwinii

Berberis darwinii is a species of barberry native to southern South America in southern Chile and adjacent south-western Argentina. Common names include Darwin's barberry and berberis. It was discovered in South America in 1835 by Charles Darwin during the voyage of the 'Beagle'.

It is an evergreen thorny shrub growing 1–4 m tall, with dense branches from ground level. The wood is coloured yellow by the chemical berberine.

The leaves are small, oval, 2–3 cm long and 8–18 mm wide, with a spiny margin. They are borne in clusters of 2–7. The upper surface is shiny and dark green while the underneath is pale and dull. Fine sharp spines 5–10 mm long occur under the leaf clusters.

The flowers are orange-yellow, in drooping clusters 2–5 cm long, with reddish outer portions produced in spring. The fruit is a small purple-black berry 4–9 mm long, with a bluish waxy bloom, ripening in summer.

The plants are spread as a result of birds consuming the ripe fruit.

Cradle Coast NRM spreading the weed message

Cradle Coast NRM Weeds has been involved with three field days in the region over the last month or so.

The first was a day trip to the West Coast, to view the various projects happening there. Around 100 people enjoyed the day, travelling on two buses from Burnie to Queenstown, then via the Abt Wilderness Railway to Strahan, and back on the bus to Zeehan and Burnie. Patrons witnessed first hand the many challenges for weed management on the West Coast and also saw some of the significant gains being made.

The second field day, focussing on 'Water and Weeds' was held in the Burnie and Waratah Wynyard municipality. 35 people travelled by bus to see a range of sites and hear presentations from different speakers about water-weeds and water issues in these two municipalities.

The third field day was organised by Greening Australia and held at Black River, Circular Head, an area notorious for its gorse. Around 30 people learnt about the weed problems in this area, and the active programs in place to assist control.

Excellent media coverage was a feature of the events, helping to inform the wider community of the issues and challenges facing weed control in the Cradle Coast Region.

For more information about weed control in the Cradle Coast NRM region, contact Greg Taylor, on 6431 6285.

Greg Taylor
Cradle Coast NRM

Bio Links Project – Huon Valley/Kingborough Biodiversity Landscape Linkages Project

The Bio Links Project has been established to develop a two year pilot corridor connection program delivered in partnership between the Huon Valley and Kingborough Councils and NRM South, with support and funding from the Australian Government's Natural Heritage Trust.

Weed management milestones in the Bio Links project:

Willow management

Willows along the Snug River have almost been eradicated except for a short section of river, which the local landcare group will treat. Two Green Corps teams participated in the work. They provided seven days of work, assisting and being trained



Michael Rowland (left) and Andrew Crane in the battle of 'weeds versus technology' (the loser paid the park fees)

Photo by Beth Chamberlain

by the contractor, who completed the task. A Conservation Volunteers Australia team treated Spanish heath throughout most of the river from the upper reaches down. The outcomes are very pleasing.

- Allens Rivulet has been cleared of re-sprouted willow down to the Platypus Creek confluence,
- Willows at Coombes Rivulet at Longley and Mountain River are currently being treated.
- Nichols Rivulet has had 150 m of heavy willow infestation treated at and below 'The Deepings' (a big thank-you to Peregrine School and Mrs E. Dillon).

Zone A Weeds

Pampas grass eradication is underway with two contractors on the job. The community response to 'dob-in-a-pampas' has been tremendous with about 60 reports made so far. There are over 200 plants on the map and more on paper to confirm. One report was the discovery of a very large infestation in an operational quarry near Oyster Cove!

- Square stemmed St Johns wort is being treated in Lucaston; about 1 km of riparian reserve is affected. Further identified sites are on the list for eradication.
- Patterson's curse sites will soon be identified for Autumn spraying. Some incidental treatment has already occurred.
- Numerous African feather grass sites in the Huon Valley have been identified and one has been treated so far.

Bio Links was fortunate to be assisted by Andrew Crane (DPIW, Southern Regional Weed Officer) on two trips to the southern reaches of the Huon Valley and to Bruny Island to view and assess pampas and other roadside weeds in these areas.

In the Huon, 150 GPS points were collected for weeds and sites. Although the principal purpose of the trips were to locate pampas, many other useful weed records were collected and will assist other aspects of the Bio Links project and Holly Hansen in her work as the Bushcare manager for the Huon Valley Council. The distribution of New Zealand sedge (*Carex flagellifera*) was also surveyed. Assistance to eradicate the known populations of this weed is currently being discussed.

Amongst the 350 waypoints of a list of weeds too numerous to describe here, a new population of Scotch heather (*Calluna vulgaris*) and a potentially new seeding willow site was discovered by Andrew Crane whilst conducting the weed survey for the 'Bruny Island Weed Strategy' with Beth Chamberlain. Beth and I will work together to support each other's projects. Unfortunately, there was not enough time to sample the excellent selection of red wines at the Bruny Island Smoke House. Perhaps next time!

REGIONAL WEED MANAGEMENT

Michael Rowland
BIOLINKS PROJECT OFFICER

BEST PRACTICE



Andrew Crane
REGIONAL WEED MANAGE-
MENT OFFICER, DPIW

Plants and horse poisoning

A large number of plants that are common to Tasmania's roadsides, pastures and gardens are potentially toxic to horses. Plants can contain an enormous variety of substances that are considered poisonous, either on their own or when combined. This range is significant when trying to determine if an unwell horse is suffering from plant poisoning.

Added to this, the time of year, the health of the plant and obviously the health of the horse, can also mean the difference between mild and severe poisoning. For all these reasons, it perhaps isn't surprising that poisoning from plants may go undiagnosed in a large number of cases. We now know a great deal about the poisonous principles of many plants from Europe and North America, and their effects have been studied rigorously. But in Australia, there has been far less testing of native plants, so their effects on horses (and other domestic animals and livestock) are not always understood. Horse owners can play a valuable part in increasing our knowledge of native plant poisons by passing on their own experiences with poisoned animals.

Despite the gaps in our knowledge, it is possible to identify a number of plants found in Tasmania that are known to be toxic to horses. Of course, it is far better to avoid plant poisoning, rather than trying to determine possible causes.

“addiction” can result in an accumulation of toxins

In general, horses don't find poisonous plants very tasty, but if the available forage is insufficient – most often because the pasture has been overgrazed or the horse neglected – hungry horses will resort to eating whatever foliage they encounter. Unfortunately, after this occurs a horse can acquire a taste for a toxic plant they initially found unpalatable, and may even seek out the plant despite the presence of safe and nutritious forage. This kind of “addiction” can result in an accumulation of toxins, so that plants considered mildly poisonous can have just as severe effects as highly toxic plants that may be ingested only once. Not only that, but symptoms may not be very obvious until it is too late. The most prominent examples in Tasmania include ragwort, capeweed, Paterson's curse and bracken fern. These plants are common in many parts of the state.



Hemlock (*Conium maculatum*) is a weed of waste places, and thrives on disturbance and moisture. It has an unpleasant smell, but may be browsed in spring when the small plants grow among lush grass. Symptoms of poisoning include vomiting, dilation of the pupils, coldness, lack of coordination and eventual death from respiratory paralysis. Consumption may also result in foetal deformities.

Photos by Matt Baker

In addition to being at risk in a poorly managed paddock, horses may also be in danger of plant poisoning if they:

- Eat grass clippings or hay that contain parts of toxic plants. There are two important aspects to this scenario. Firstly, some toxic chemicals become more concentrated when a plant is severely stressed or dead. Animals should never be fed plant matter that might have been sprayed, and hay should be clean. Horses have died from eating hay contaminated with the dried leaves of poisonous plants. Secondly, the part of the plant that is poisonous varies depending on the plant. In some species toxins
- are found only in the leaves, but in others they are found in all parts of the plant, including the fruits/seeds and the root.
- Browse in domestic gardens. The list of ornamental trees, shrubs and smaller plants that can harm horses is very long, and includes some of our most common garden plants, such as rhododendrons, azaleas, oleander, hellebores (winter rose), cherries, walnut (colic, depression, convulsions) and lantana (jaundice, liver failure). Some ornamental maples are particularly toxic.
- Forage on native plants and weeds when trekking, for it is then that they may inadvertently ingest something poisonous without the

BEST PRACTICE

rider even being sure of what they have eaten. Many of the plants that are found along tracks and roadsides are introduced plants from the Northern Hemisphere. The most poisonous of these include St John's Wort, which causes photosensitization (sensitivity to sunlight) and Paterson's curse.

For further details refer to *Plants Poisonous to Horses - An Australian field guide* by Mellisa Offord (Nov. 2005)



St John's Wort (*Hypericum perforatum*) contains a chemical compound that causes photosensitisation (extreme sensitivity to sunlight). Skin lesions develop and often become infected, animals become distressed by exposure to light and water, begin to stagger, become further debilitated and lapse into coma. The first symptoms appear externally within 1-2 weeks of consumption. Once sensitised, skin areas remain that way, and while lesions may eventually heal, further consumption leads to the rapid development of new lesions. Horses have been known to bash themselves to death in an effort to escape the effects of St John's wort poisoning.

Paterson's curse (*Echium plantagineum*) probably results in the death of more horses in Australia than any other poisonous plant. It contains chemical compounds that cause liver damage. Symptoms can be slow to become obvious, with poor condition the most common. Horses develop a taste for the weed, and will selectively browse it, resulting in accumulation of toxins and eventual death. Paterson's curse can also cause photosensitisation, similar to St John's wort.



BEST PRACTICE

Erin Trainer

PROJECT OFFICER (PIRI),
FORESTRY TASMANIA

Pesticide Impact Rating Index (PIRI)

What is PIRI?

PIRI (Pesticide Impact Rating Index) is a risk indicator that provides information on the potential impact of pesticides on water quality. Developed by the CSIRO, PIRI can assess the relative risk, following a pesticide application, of off-site transportation and water contamination. It can be used for risk assessment in relation to surface and ground water supplies. It has the capacity to rate the risk of movement into the water source and the potential toxicity to aquatic life and humans by using toxicity data or water quality guidelines.

PIRI provides a visual comparison of toxicity and mobility between different chemicals that could be applied to the same area at the same time (fig. 1). This allows the user to choose between pesticides, and the timing of application, with a greater knowledge of the potential environmental impacts of their choice. PIRI has a user-friendly interface that is relatively easy to use.

The required number of inputs is small and they are relatively easy to obtain including site specific factors, such as soil type and slope, and climatic factors. For each pesticide used the rate and method of application is entered and the mobility and toxicity risk is assessed. PIRI has been used with a large degree of success in other parts of Australia and other countries including Sri Lanka, Ecuador and Malaysia.

More information on PIRI is available at: <http://www.clw.csiro.au/research/biogeochemistry/assessment/projects/piri.html>

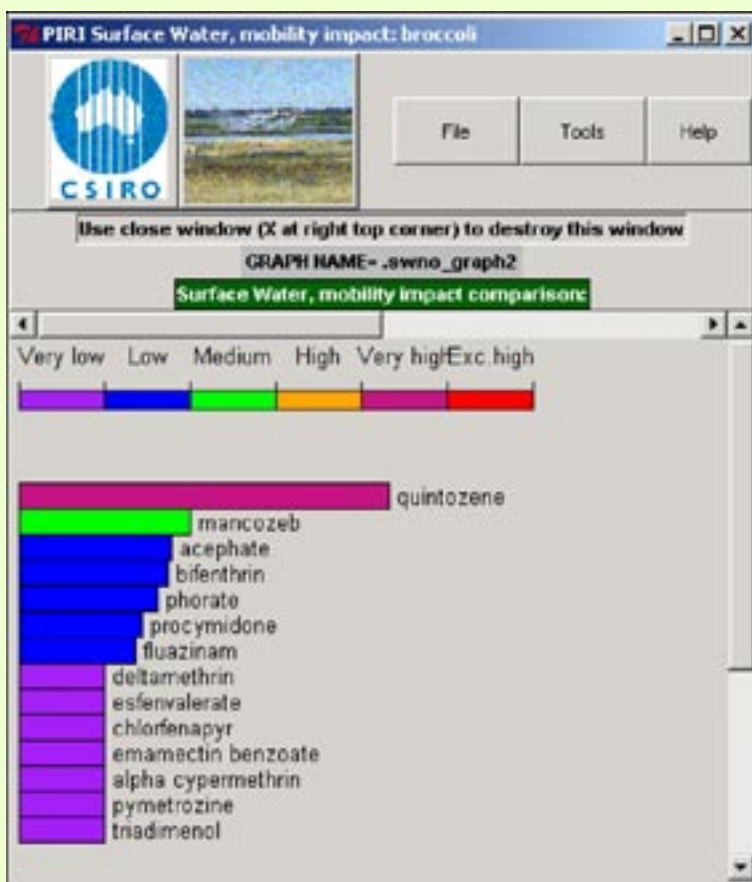
PIRI in Tasmania

The Tasmanian River Catchment Water Quality Initiative is a project of the Tasmanian Community Forest Agreement and is being funded by the Australian Government and managed by the Department of Primary Industries and Water. As part of the initiative PIRI is being customised for Tasmanian conditions through several interlinked projects managed by Forestry Tasmania, CSIRO Land and Water and the Tasmanian Institute of Agricultural Research.

Forestry Tasmania has been monitoring the quality of water bodies in close proximity to land, which has had pesticides applied, for over a decade. As such they have a large quantity of data suitable for investigating PIRI's applicability to the Tasmanian environment. The validation process involves comparing the water sample results that were observed at the time of spraying, with a risk rating given by PIRI. This risk rating will be generated by entering into PIRI the environmental and operational conditions at the site and time of application for the operation under consideration.

The Initiative commenced in August 2006 and is showing a lot of promise for use when planning pesticide operations in the forest and agricultural industries. The Initiative will conclude in mid 2008.

For any further information on the Initiative please visit the Website at www.dpiw.tas.gov.au/rivercatchment or contact the Project Manager, Sven Meyer on 03 6233 8056 or Sven.Meyer@dpiw.tas.gov.au.



An example of the visual comparison provided by PIRI showing the mobility rating for a range of pesticides being considered for an application

Khasia berry

Cotoneaster simonsii Hort. ex Baker (Rosaceae)

What is it?

Cotoneaster simonsii is native to the Himalayas and east India. It was introduced to Tasmania as an ornamental on account of its hardiness and striking display of berries during the autumn and winter months. In Australia, it is naturalised in South Australia, Victoria and New South Wales. In Tasmania, It was first recorded as a garden escape in 1985. Three other species of *Cotoneaster* are also naturalised in Tasmania, these are *C. glaucophyllus*, *C. pannosus* and *C. franchetii*.



Cotoneaster simonsii
Photos by Matt Baker

What is its weed potential?

The berries of the naturalised *Cotoneaster* species are very conspicuous and are readily eaten by birds. This has facilitated their spread from cultivation. In Tasmania, *C. simonsii* is one of the most invasive of the four species. It is most common on the West Coast where it is found in a wide range of habitats including wet sclerophyll forest, coastal woodland, button grass plains, and on river banks. In some areas on the West Coast, it is locally common and populations in excess of 200 plants have been observed. It is also recorded in the Midlands the North West and East Coast of Tasmania.

What does it look like?

Cotoneaster simonsii is a semi deciduous shrub which can grow to a height of 4 m. The leaves (up to 30 mm long and 15 mm wide), which are sometimes arranged distichously, are variable in shape but are usually rhombic or ovate. The apex of the leaves is acute to apiculate. The upper surface of the leaves is glossy, dark green and sparsely pubescent, while the lower surface is pale green and more densely pubescent. The flowers occur in groups of 1–5. Each flower consists of 5 small, triangular sepals and 5 petals (2–3 mm long), which are white with pink markings. The fruit (c. 10 mm long) is a small, orange-red berry (actually a pome) and contains 3–4 nutlets (pyrenes).



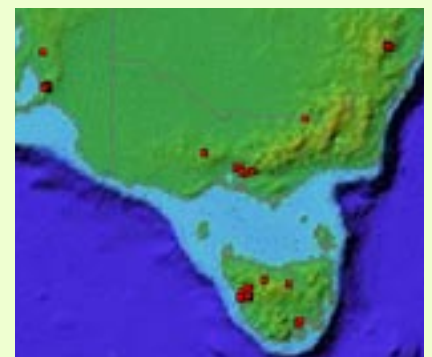
WEED PROFILE



Matthew Baker
WEED TAXONOMIST,
TASMANIAN HERBARIUM

Key to Cotoneaster in Tasmania

- 1. Inflorescence more than 20-flowered; leaves usually more than 30 mm long ***C. glaucophyllus***
- 1: Inflorescence less than 20-flowered; leaves usually less than 30 mm long 2
- 2. Leaves sparsely hairy on lower surface, lamina visible between the hairs; fruit with 3–4 pyrenes ***C. simonsii***
- 2: Leaves densely hairy on lower surface, lamina obscured by the hairs; fruit with 2–3 pyrenes 3
- 3. Petioles 4–8 mm long; petals white, spreading; fruit with 2 pyrenes. ***C. pannosus***
- 3: Petioles 3–4 mm long; petals white to pinkish, erect; fruit with 2–3 pyrenes ***C. franchetii***



Distribution of Cotoneaster simonsii
Source: Australia's Virtual Herbarium

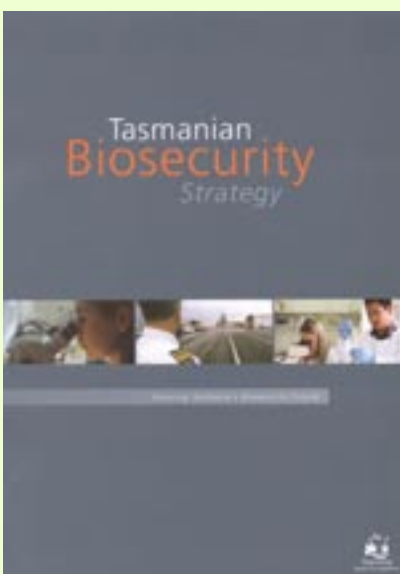
STRATEGIES & PLANNING

Andrew Bishop
MANAGER (BIOSECURITY
POLICY BRANCH), DPIW

Tasmanian Biosecurity Strategy

The Tasmanian Biosecurity Strategy is the vehicle that converts Tasmania's Biosecurity Policy into action. In short, it details the actions that need to be taken to achieve a range of key goals. These actions include:

- Further development and implementation of the science-based biosecurity risk analysis framework.
- A rolling review of import requirements for plant and animal products to ensure effective mitigation of risk.
- Enhancing the quarantine barrier and beefing up DPIW's capacity to deal with those who don't comply with the quarantine restrictions.



Policy and strategy

Ensuring Tasmania's biosecurity future

Plans, strategies, roadmaps...call them what you will but they are all an integral component to high-level achievement. They provide a clear idea of where you are going and how you are going to get there. Webster's on-line dictionary defines strategy as a "long term plan of action designed to achieve a particular goal".

The Tasmanian Government's recently released Tasmanian Biosecurity Strategy fits the description of a long-term plan of action. The goal it aims to achieve is to satisfy our State's biosecurity policy objective. This objective is to protect and enhance Tasmania's biosecurity status for the benefit of Tasmania's industries, environment and public well being, health, amenity and safety. This means protection from the negative impacts of pests, diseases, and your will be pleased to hear, weeds.

Biosecurity covers all activities that are pre-border (eg. interstate plant health certification), border (eg. quarantine inspection), and post-border (eg. pest control programs in the State). Of course, to most people, quarantine operations are the most visible part of our biosecurity system. However, it is all elements of the biosecurity system that need to work together to successfully maintain our enviable biosecurity status at its very high level.

And this leads me to the 'why' of biosecurity. Tasmania is an island state and has always had a geographical advantage in terms of relatively lower pest, disease and weed pressures compared to other States in Australia, and other parts of the world. The States well-developed approach to quarantine over the years has further minimised biosecurity threats. Recent years has seen increased pressure on our biosecurity system with increased movement of products, higher levels of trade, and lots more visitors to the State. Our biosecurity status is a very important advantage to us in terms of a marketing edge and the State literally trades on its 'Island Advantage'. This all contributes to Tasmania as a commercial brand. Of course this extends to benefiting our amenity and lifestyle and supporting other industries such as tourism as well. There are many pests, diseases, and weeds present in other States that just don't exist in Tasmania and we aim to keep it that way.

It is this heavy responsibility that clearly demonstrates the need for a comprehensive plan of action to maintain and build on our State's biosecurity system; the Tasmanian Biosecurity Strategy satisfies this planning need. Even more important than a strategy is a transparent, consistently applied, science-based policy that documents our State's position on biosecurity; a policy that clearly articulates the elements of our biosecurity system that need to be maintained. Tasmania has had such a policy for many years but it has recently been formally documented and was published alongside the Strategy.

Briefly, Tasmania's Biosecurity Policy consists of several elements, including:

- accepting only very low levels of biosecurity risk
- science-based decision making in assessing biosecurity risks
- cost/benefit considerations for eradication and/or control of biosecurity threats
- a whole-of-government approach to biosecurity

So where do weeds fit into the biosecurity picture? They are clearly identified as a biosecurity issue of importance and along with pests and diseases are identified as key biosecurity threats. Importantly the Strategy recognises associated plans such as the State's WeedPlan that covers off on the details of State approaches to weed management in Tasmania. In this way, the biosecurity strategy complements other relevant plans such as WeedPlan.

While the Strategy document is the State's working plan for our biosecurity system, it is also a useful reference for all with an interest in our primary industries on

New Gorse Coordinator for WoNS

Dean Vincent has taken on Sandy Leighton's role as the Weeds of National Significance (WoNS) National Coordinator – Gorse.

Dean has come from the Department of Primary Industry and Water's (DPIW) Private Property Conservation Program, where he was working as a Conservation Management Officer. This involved the implementation of a conservation manage-



ment strategy for conservation covenants developed through the Private Forest Reserves Program. Providing native vegetation and weed management advice were large parts of the role. Probably the greatest threat to the private land reserve estate is weeds. Dean hopes he has seeded the idea of a weed management strategy for all covenanted land in Tasmania.

When not at work, Dean relaxes with his family at Fern Tree in Hobart. Dean's two boys, who are 1.5 yrs and 3.5 yrs, have not quite differentiated between real weeds and those plants which should stay in the garden (they are happy to pull out native geranium but will leave the orange hawkweed in situ). Dean recently competed in a 90 km mountain bike race, where one of his only recollections is the Spanish heath that he saw in the middle of nowhere!

Gorse

The role of the coordinator is very much about the national perspective. It's a big country and the National Gorse Taskforce has identified containment and eradication zones around Australia to help strategically tackle gorse on a large scale.

In areas where gorse is wide spread and has a good stranglehold, the National Gorse Taskforce strongly advocates best practise management and containment of the problem. The Midlands is a classic example.

Protecting natural assets like grasslands, bushland and rare plants and animals from gorse infestation is an important activity. Managing gorse in pasture and cropping land is critical. Stopping the spread within the area and to outside the area is a necessity. Since the release of the Gorse Best Practise Manual, far greater successful control of this weed has occurred around Australia.

The Gorse Best Practise Manual has been a huge success and if you have not got a copy give Dean a call on 6233 3197 to get one now. Based on experience of wins and losses from around the country this really is the 'how to' guide

for gorse. From all reports, people are feeling a lot more confident about starting out on a gorse control program.

The National Gorse Taskforce is focusing on eradication of gorse in National Priority Eradication Areas. Many groups from around the country have committed to eradication campaigns for gorse. Western Australia is confident that they will permanently eradicate it from their state. See <http://www.weeds.org.au/WoNS/gorse/>

In Tasmania, there are six local government areas where gorse is listed as a Zone A weed. This means the principle aim is to eradicate it from within the municipality. The Zone A areas in Tasmania are the Tasman, part of the Sorell, Dorset, Flinders, Waratah/Wynyard and the King Island municipalities. A huge amount of time, money and effort (not to mention blood, sweat and tears) has been put into gorse control in these areas.

If you can use promotional material including a stand up banner and control guides give Dean a call or just give him a call to talk gorse.



Gorse knows no bounds
Photos by Matt Baker

Policy and strategy (cont.)

the what, why and how of biosecurity. Any one with an interest in biosecurity, quarantine, or weeds are urged to read both Strategy and Policy documents so they can get up to speed on what we are doing in biosecurity and the way it will develop in the years ahead.

Both the Tasmanian Biosecurity Policy and the Tasmanian Biosecurity Strategy can be downloaded at www.dpiw.tas.gov.au/biosecurity or printed copies can be obtained by contacting biosecurity.policy@dpiw.tas.gov.au or phoning 1300 368 550.

STRATEGIES & PLANNING

Weed of pastures and field crops in Tasmania: Economic impacts and biological control

J.E. Ireson, J.T. Davies, D.A. Friend, R.J. Holloway, W.S. Chatterton, E.I. Van Putten and R.C. McFadyen

This most recent technical series publication by the CRC was a joint project involving the CRC for Australian Weed Management and the Tasmanian Institute of Agricultural Research (TIAR), TIAR being a participating organisa-

tion in the CRC. The publication focuses on Tasmanian agricultural weeds and provides:

- a revised assessment of the annual cost of weeds to Tasmanian pastures and field crops
- a list of the top twenty agricultural weeds in each of the nine defined agricultural regions and the three NRM regions of the State and whether the problem status of each weed has increased, decreased or remained stable over the last ten years
- a review of the current status of all weed biological control programmes that have been conducted in Tasmania against some of the major weeds
- a case study of the successful biological control programme on ragwort

The annual cost of agricultural weeds to the Tasmanian economy was estimated at \$58 million. This includes production losses and herbicide costs, but not the labour costs involved in control. For this reason it can be used as a minimum figure to indicate the cost of weeds to Tasmanian agricultural industries. The data on the status of the major weeds in defined agricultural and NRM regions will enable the success (or otherwise) of current and future weed management strategies to be assessed.

The publication should be a useful reference for those involved in the control of agricultural weeds both within the State and nationally. Copies are available free of charge and can be obtained by contacting John Ireson (john.ireson@dpiw.tas.gov.au or (03) 6233 6821).



Aquarium and Pond Plants of the World (Edition 2.0)

Dr Shaun L. Winterton and Julia Scher

Aquarium and Pond Plants of the World is an online identification and information tool which covers aquatic plants in the aquarium and pond plant industries.

Many of the plants covered in this tool are major aquatic weeds around the world. The tool helps users identify all genera (over 140) of aquatic plants (and some algae) presently cultivated or collected around the world for the freshwater aquarium and pond plant trade.

This edition is an update to the first, with 16 new taxa, all new feature pages, a restructured matrix, many new photos and drawings, a new site design, and many more changes and improvements!

Published by: USDA-APHIS-PPQ-CPHST (United States Department of Agriculture – Animal and Plant Health Inspection Service – Plant Protection and Quarantine – Center for Plant Health Science and Technology).

Check out the key at the following web address:

<http://www.lucidcentral.org/keys/aquariumplants2>

