



Weed Spotters Newsletter

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Welcome to the Spring newsletter

Welcome to the first Weed Spotter newsletter. This newsletter aims to bring you up-to-date information on what weeds have been spotted in your area, training dates for your area and small feature articles on weedy issues and what has been happening in the network.

A big thankyou to start with, for the great support this project has received in the pilot regions of Rockhampton and Townsville. There are a lot of people out there who are very committed to weed issues and keen to assist with the spotting of new and emerging species.

To date we have 92 people registered as Weed Spotters and of these 59 have been trained in weed collection techniques. Inside you'll find an article on the training that has been delivered to date. If you have not had the opportunity to attend one of these events the section on 'Up and coming events' sets out some dates to put in your diary over the next few months.

Weeds CRC Regional Coordinators

We now have three Weeds CRC Regional Coordinators (Weeds CRC RC) across the pilot regions. **Trudy Baker** in the Rockhampton region will be working Fridays out of the Queensland Parks & Wildlife Service (QPWS) office in North Rockhampton, **Sari Mangru** in the Townsville region will also be working Fridays from the Queensland Herbarium (QHerb) office at Cape Pallarenda and **Brent Braddick** has volunteered his time to assist with any specimens from the Gladstone region through the Tondoon Botanic Gardens. All of their contact details can be found on the page six.

All three coordinators came down to the QHerb in early July for training in their new roles. They learnt to use the QHerb database, HERBRECS, to assist them in filtering Weed Spotter specimens, and the Environmental Protection Agency (EPA) database, WildNet Lite, for recording specimen label information provided by Weed Spotters. The Weeds CRC RC were also given information and practice in collecting weed specimens, including those difficult plants, cacti and aquatics plants.



Megan Thomas (Principal Technical Officer QHerb) showing Weeds CRC RC (L-R) Sari Mangru (Townsville), Trudy Baker (Rockhampton) & Brent Braddick (Gladstone) how to press a plant correctly. Photo: Weeds CRC



Trudy Baker, Weeds CRC RC for Rockhampton, preparing an *Opuntia* sp. ready for pressing. Photo: Weeds CRC

Weed Spotter training

Training in weed collection techniques has been underway since early May. There has been one session in the Townsville and three in the Rockhampton regions. What's been great about the training is the mix of state and local government staff and community groups all joining in to collect weeds and talk about their own personal experiences. This information sharing is really important and allows people to learn from each other.

Below are a few photos of the training. Community groups and local governments have co-sponsored the training events in each region. Many thanks to those who have been involved in organising the events and the groups that have helped sponsor the training.

Take a look at the last page of the newsletter for up and coming training events in your region!

Yeppoon

Livingstone Shire Council hosted training at the Yeppoon Indoor Bowls Club with 20 people attending from local community groups to state and local government.



Fighting to get that weed into the press are **Geoff Maddy** (Yeppoon Slashing) and **Ruth Anderson**. Photo: Weeds CRC

Gladstone



A group photo of those people who attended the training held in Calliope in early May for Gladstone Society for Growing Australian Plants (SGAP). The venue was kindly provided by **John Noort** from SGAP and 17 people attended the training. All keen Weed Spotters – even little **Zoe Wardlaw**. Photo: Ruth Crosson



Despite the rain (in June!) we were able to make the collection of weeds a bit of fun. Someone provided **Jane Morton** with a pair of gloves... they were a little too large for her hands though! Photo: Weeds CRC

› Weed Spotter training continued

Townsville



Training at the State Emergency Centre in West End, Townsville was hosted by Townsville City Council. 15 people attended the training, with trainees from local governments to interested individuals, the group was keen to learn how to collect and press weeds especially grasses. Photo: Weeds CRC

Rockhampton



Phillip Esdale from Rockhampton SGAP collects and presses weeds in the field training exercise. The Rockhampton Society for Growing Australian Plants sponsored the training with seven of their members attending the training at the Central Queensland Girl Guides Environmental Centre. Photo: Weeds CRC

Charters Towers



Dean Duncan (Dalrymple Shire Council) and David Hill-Warner (Millchester State School) have a go at collecting and pressing the stinking passion vine at Towers Hill Bushland Reserve. Dalrymple Shire Council hosted the training at the Shepard Training Centre with 18 people attending from local community groups to state and local government. Photo: Weeds CRC



Bill Hussey, Andrew Edmondson (Charters Towers City Council), Kent Dungavell (Dalrymple Shire Council) and Jane Morton (Weeds CRC) discuss how to press a specimen whilst trying to keep the paper from blowing away! Photo: Weeds CRC

Training was also held with 15 local people working in the Charters Towers Community Development Employment Program at the Shed, Dundee Lane, Charters Towers. Indigenous and non-indigenous people learnt how to collect and press weeds providing them with the skills to submit specimens they spot when they are out and about working on their revegetation jobs.

Hunt on for one of the world's worst weeds

Kelly Murphy & Phil Maher NR&M Brisbane

As the lead agency for the national Siam weed survey, NR&M is hunting by air and on the ground for one of the world's worst weeds.

The survey was commissioned by the Australian Weeds Committee to review the effectiveness of the national Siam weed eradication program, in place since the weed was first discovered near Tully, north Queensland, in 1994.

Siam weed (*Chromolaena odorata*), which produces 80 000 seeds a year and, like lantana, will grow in poor soil, has enormous potential to spread south, to northern New South Wales, and west, to northern Western Australia.

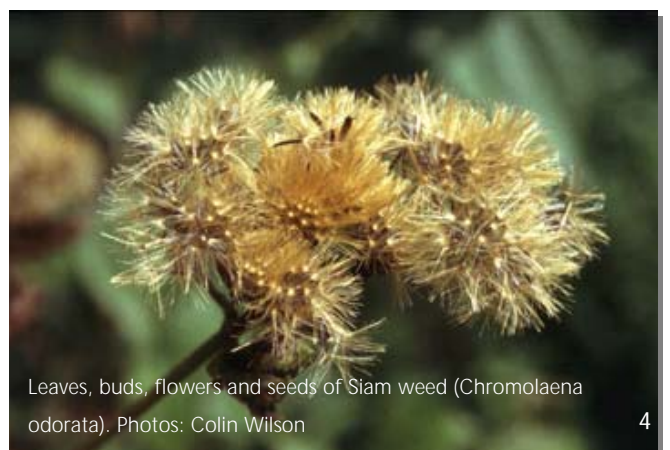
The toxic weed has strangled crops and pastures in southeast Asia, forcing farmers to abandon them. It has also been blamed for over 3 000 cattle deaths in the Philippines.



This root ball is testament to how difficult it is to remove Siam weed once it is established. Photo: NR&M

The survey will establish the extent of the problem (Siam is currently thought to be confined to north Queensland) and record infestations for future destruction.

Known infestations of Siam weed occur at three primary loci (Tully, Bingal Bay and Thuringowa) with approximately 14 small outliers. These areas are



Leaves, buds, flowers and seeds of Siam weed (*Chromolaena odorata*). Photos: Colin Wilson

› Hunt on for one of the world's worst weeds continued

currently under active eradication and this delimiting surveillance operation excludes these areas.

The primary purpose of the delimiting survey is to search beyond the current control areas for the purpose of identifying new cases requiring further delimitation.

Accordingly, NR&M has identified those parts of Australia conducive to the growth of the weed; and 13 key 'pathways' important to its potential spread.

These pathways include water flows and the movement of cattle, farm machinery and people.

To ensure the vast search area is surveyed as effectively as possible, NR&M is relying on a computer model that uses search theory to calculate the probability of finding Siam weed in a given area.

" Even before we start searching, we know the likelihood of finding Siam weed in a particular area and the cost-effectiveness of searching the area," says principal scientist Joe Scanlan.

" The model is designed to give us a 95 per cent assurance of finding the weed - it takes out the guesswork."

The field searches are complemented by a community awareness campaign, including media advertisements, direct mail and an 1800 number for members of the public to call if they find the weed.

Numerous other federal and state agencies, local governments, industry and community groups, and landholders are also involved in the survey.

To date we have identified two new infestations through aerial survey work. The infestations are made up of a small number of plants and are located in the wet tropics region of Queensland.

Survey staff will visit the sites to ground truth the aerial findings and interview landholders to try to determine how the infestations came to be there. The initial control work for these new infestations will be undertaken as part of the delimiting program.

A review of the delimitation survey outcomes with recommendations for on-going management of Siam weed in Australian will be published at the end of the survey program.

For more information, phone Phil Maher 3405 5530.

The trouble with *Thunbergia*

Tony Bean, Botanist, Queensland Herbarium

Thunbergia is a genus of about 90 species in the family Acanthaceae. They are native to the tropical parts of Asia, Australia and especially Africa.

Thunbergias have showy and colourful flowers, and hence many have been widely cultivated in the warmer parts of the world. Unfortunately some have also proved to be weedy, and a few species are now naturalised in northern Australia.

T. fragrans and *T. arnhemica*

The white-flowered *thunbergias* that grow in Queensland are currently causing headaches for botanists.

We can be 99% sure that some white-flowered *thunbergia* populations are indigenous (ie were present before European settlement) based on the



Thunbergia laurifolia collected in Brisbane, showy purple flowers (Class 1). Photo: Weeds CRC

› The trouble with *Thunbergia* continued

remoteness of some of the locations and the very low probability of exotic plants occurring there. The species name *Thunbergia arnhemica* has been described to cater for this taxon. The indigenous distribution of thunbergia in Australia is Cape York peninsula (Lakeland Downs to Torres Strait), far northern N.T. and northern Kimberley of W.A.

Equally, we can be sure that some white-flowered thunbergia populations are naturalised, because they have appeared over the last few years in coastal parts of north Queensland, where they have never been seen before. This taxon is an aggressive weed that occurs in very disturbed environments. We are calling it *T. fragrans*.

The problem is that the naturalised and the native species are very, very similar in appearance.

T. fragrans is a complex of taxa that range from India to Australia and New Guinea. Besides *T. arnhemica*, there are several other named species that are part of the *T. fragrans* complex. It is possible or even probable that *T. fragrans* should be considered a single widespread, variable species, with *T. arnhemica* merely a form of that species. Or, it may be that there are a number of well defined species in the group.

In botany, just as in other areas of science, such problems can only be resolved by research, and there are usually far more problems than there are scientists to do the research. So it is with thunbergia.

C.E.B. Bremekamp, in 1955, was the last person to examine the taxonomy of thunbergia in southeast Asia and Australia. His study is not considered of much value today because he often erected species based on one or two specimens and his species were frequently separated by only minor differences.

So a new and detailed taxonomic revision of the *T. fragrans* group is needed. As this is unlikely to happen in the near future, we need to make some pragmatic decisions with respect to the conservation or destruction of thunbergia populations, based on our existing knowledge of their morphology, distribution and ecology.

Morphological differences between the cultivated and naturalised *T. fragrans* and the indigenous *T. arnhemica* are few, but *T. arnhemica* has longer flower-stalks, the style the same length as the corolla, and flowers solitary in the leaf axils (R. Barker pers. comm.).

Also, any white-flowered thunbergia from populated areas south of Lakeland Downs (Cairns, Townsville, Mackay etc.) is almost certainly the exotic form. Collectors should be aware that full ecological and habitat notes are especially important for the identification of these plants.



Thunbergia fragrans, Townsville. Photo: Sheldon Navie

Food for thought...

'Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has.' Margaret Mead

Spotter awards

Congratulations to the following Weed Spotters for their keen spotting techniques.

Glenn McIntyre (Livingstone Shire Council) – *Eichhornia crassipes* (water hyacinth) – Class 2

Peter Brock (Pimlico TAFE) – *Thunbergia fragrans* (thunbergia) – Class 1

David Reid (Conservation Volunteers Australia) – *Ruellia tuberosa* (ruellia) – emerging weed

Scott Mitchell (Fitzroy Shire Council) – *Leucas lavandulifolia* (leucas) – emerging weed

Bev McKay (Gladstone SGAP) – *Ruellia tweediana* (mexican petunia) (previously known as *Ruellia malacosperma*) – emerging weed

Up and coming training events

Rockhampton

3rd November, Biloela Shire Council, Biloela. Contact Trudy Baker Weeds CRC Regional Coordinator on (07) 4931 5439 (Mon–Thur) or (07) 4936 0528 (Fri) to register for training.

Pressing matters

If you need a field press to collect your specimens, have a chat to your Weeds CRC Regional Coordinator about loaning one of the field presses available to trained Weed Spotters in the network. Each pilot region has a small number of presses available for loan – contact details for Weeds CRC Regional Coordinators are listed below.

Interested in being involved?

If you are interested in joining the Weed Spotter network or would like to host a training event in your area please call Jane Morton on (07) 3896 9467, leave a message on her mobile 0416 107 763 or email Jane on jane.morton@epa.qld.gov.au



HAPPY WEED SPOTTING!

Contact details for your Weeds CRC Regional Coordinators

Townsville

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Gladstone

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