

North Coast WEED READ

No.16 AUTUMN 2008

Newsletter for the NSW North Coast Weeds Advisory Committee

We circulate each March, June, September and December. Please send information to the Secretary in the month before publication.

Now, what's going on in weeds....

COURSES, WORKSHOPS, CONFERENCES

Vine identification and management workshop 29 March 2008. Yallakool Reserve, Ocean Shores. Learn to differentiate between native and exotic vines with bush regenerator and botanist Darren Bailey. Get advice on how to manage vines in environmental restoration work. The new vine identification book will be on sale. Bookings only. Ph Colin Hastie 6626 7028

Chemcert Training

4 & 11 April 2008. Lismore.
9am-4.30pm. From 1 Sep 2003, training became compulsory under the Pesticides Act 1999 for commercial users of herbicides. Herbicides can be dangerous if incorrectly applied or managed. Training aims to minimize mistakes being made so that workers, their families, the community and the environment are protected. Refresher courses are required every five years. Contact 6621 9588 or email lismore@envite.org.au

Crossing the Ranges Bus trip (Upper Clarence) 16 April 2008. Departs Kyogle, touring riparian project sites in the Upper Clarence. Free with BBQ lunch provided. Ring West of Ranges Landcare Inc/Richmond Landcare Services 6665 1364 or 6632 3722

The Australian Network for Plant Conservation 7th National Conference

21-24 April 2008. "Winbourne" Edmund Rice Retreat & Conference Centre, 1315 Mulgoa Rd, Mulgoa, NSW (near Penrith). This conference will examine threatening processes responsible for the decline in our native flora including climate change, weeds and habitat loss and will discuss effective responses. For scientists, conservation managers, on-ground practitioners and community groups. Symposia include tackling weed invasions, conservation on private land and Phytophthora (die-back disease). Workshops include bush regeneration skills and seed production techniques. For more info visit www.anbg.gov.au/anpc/conferences.html or ring (02) 6250 9509.

Crossing the Ranges Bus trip (Richmond)

23 April 2008. Departs Tabulum, touring riparian project sites in the Richmond. Free with BBQ lunch provided. Ring West of Ranges Landcare Inc/Richmond Landcare Services 6665 1364 or 6632 3722

Environmental Restoration Project Planning workshop.

29 April 2008. 6-8.30pm.
Canvas and Kettle Room, Murwillumbah Civic Centre. Discussion of the best course of action for restoration of individual sites. Prevent wasting time and money. Issues that require consideration include stock control, natural regeneration, local provenance, quality tubestock, healthy soils, frost, getting good survival rates, protecting plants from native animals (scrub turkeys, wallabies), to water or replant, removal/control of weeds, pioneer species/mature phase species, ground covers, vegetation structure, follow-up maintenance and not taking on too big an area. Failure to consider these aspects often leads to frustration. Contact Colin Hastie 6626 7028

Chemcert training

5 & 12 May 2008. Grafton. 9am-4.30pm. See description above. Contact 6621 9588 or email lismore@envite.org.au

Chemcert training

16 & 23 May 2008. Coffs Harbour.
9am-4.30pm. See description above. Contact 6621 9588 or email lismore@envite.org.au

16th Australian Weeds Conference "Weed Management 2008- hot topics in the Tropics"

19-22 May 2008. Cairns Convention Centre, Qld. This conference will showcase recent advances in weed science, extension and policy across Australian and international communities and landscapes. The program includes speakers, posters and trade displays. Hosted by the Weed Society of Queensland. See www.16awc.com.au

Vine Identification Workshop

15 Jun 2008. "Save our Waterways Now" HQ, The Gap (west of Brisbane). 9am – 12 noon. Free. Presented by Bill McDonald, author of "Rainforest Climbing Plants". Bill will teach participants how to recognize plant features such as star hairs and domatia and will use local vines to demonstrate identification techniques. The

All communications to the Secretary

NSW North Coast Weed Advisory Committee, Locked Bag 23, GRAFTON NSW 2460

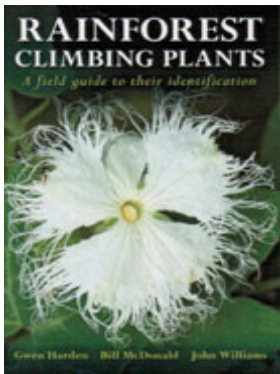
Phone (02) 6643 3820

Fax (02) 6642 4496

E-mail: reece.luxton@clarence.nsw.gov.au

www.northcoastweeds.org.au

morning will include a walk along the creek to look at vines.



Email:
info@saveourwaterwaysnow.com.au

2008 Queensland Landcare Conference

21-24 September. Monto. The theme of this conference is "Infinity: Sustainability by Design". Presentations are still being sought (deadline 14th March). Contact Samantha Morris at sam@wombatcreative.com.au. Trade exhibition spaces are available. Registration packages will be available from 28 April.
www.landcare.org/Conference.htm

W E E D N E W S

New \$ through NRCMA

The Northern Rivers Catchment Management Authority has provided funding (\$241,000) for a new riparian vine weeds project across the North Coast Weed Advisory Committee's region. Indigenous green teams will be involved in the on-ground work. Sites, although still being finalized, will probably be located in Kyogle LGA, Byron LGA, Tweed LGA, Lismore LGA, Clarence LGA, Coffs LGA and Bellingen LGA. Weeds targeted will include kudzu, Madeira vine, balloon vine, cats claw creeper, moth vine and blue morning glory. The project is to be completed by November 2009.

NORTHERN RIVERS INVASIVE PLANTS ACTION STRATEGY. This Strategy is being developed by the North Coast Weeds Advisory Committee with funding from the Northern Rivers CMA and consultation with a wide range of stakeholders. The aim is to provide strategic direction for the future management of weeds in the region and to contribute to the Northern Rivers Catchment Action Plan. The Strategy has categorized weeds into seven landscape categories and provides detail for each of the 18 Local Government Areas encompassed by the NRCMA, including describing single infestations of various weed species. The public comment period for this document has now closed with the launch of the Final Strategy expecting to occur by May 2008. Contact Meri Oakwood 6653 8843 or email envirotek01@hotmail.net.au for further information.



Madeira vine, Kempsey

Photo: M. Oakwood

SOME UPCOMING FUNDING

Northern Rivers CMA Riparian and Riverine Small Grants Program

Any landholder that has a creek or waterway (including wetland) frontage can access funding for riverine or riparian based projects. Closing date mid-March to end April. Check with your local Community Support Officer for the closing date in your area. More info: www.northern.cma.nsw.gov.au/smallgrantsscheme2008.html

Eco schools

This program provides grants to schools to give them the opportunity to involve their students and community in developing and implementing environmental management programs. Projects that promote student participation in actively improving the quality of the school and local environment, encourage schools to undertake activities that address local environmental problems and address community and government environmental concerns are amongst those that would be considered for funding. Up to 60 grants of \$2500 each are available. Schools within NSW that did not receive an Environmental Trust grant in the previous year are eligible to apply. Applications close 16 May 2008. For further info ring the Environmental Trust on (02) 8837 6093, email info@environmentaltrust.nsw.gov.au or visit www.environment.nsw.gov.au/grants/schools.htm

Environmental Restoration and Rehabilitation Grants

The aim of this program is to facilitate projects of significant environmental benefit to NSW, run by community organisations and State and local government organisations. Objectives include restoration of degraded environmental resources, including rare and endangered ecosystems and enhancing the quality of specific environmental resources. Most projects will focus on vegetation issues but other projects will be considered. Closing date 23 May 2008. For more info contact the Environmental Trust on (02) 8837 6093, email info@environmentaltrust.nsw.gov.au or visit www.environment.nsw.gov.au/grants/restoration.htm

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www.northcoastweeds.org.au

Norman Wettenhall Foundation Environmental Grants One of the objectives of the Foundation is to build capacity in local communities to effect long-term beneficial change in the natural environment. Organisations and individuals can apply. There is a preference for projects that are innovative, have a long-term effect, encourage individuals, disseminate information and result in publication. Projects that involve collaboration with a number of partners across a region are of special interest. The Foundation is currently funding two landscape restoration projects. Next closing date: 30 June 2008. Contact Therese Reidy (03) 9650 3188, email admin@nwf.org.au or visit www.nwf.org.au

Murraya....a hot topic in northern NSW...is it a weed?

Currently one of the most controversial plants in northern NSW is Orange Jessamine or *Murraya*. This species has two reputations; it is known as both a popular garden plant that is important in the nursery industry and as an environmental weed. Although there is much taxonomic confusion within the *Murraya* genus, it appears that basically there are at least three species known in Australia: the Curry Plant or Curry Leaf tree (*M. koenigii*), the native Mock Orange *M. ovatifoliolata* and the introduced Orange Jessamine (*M. paniculata* synonym *M. exotica*). The latter is particularly controversial as a garden plant in northern NSW.

Orange Jessamine is a valuable plant to the Nursery and Garden Industry and is a popular landscaper's choice for excellent reasons. This attractive plant has fragrant white flowers and rich green foliage. Additionally this species is able to grow as a dense, hardy hedge that can tolerate most soils and low water availability (once established) giving it the qualities of a great garden plant. Orange Jessamine is also very versatile in terms of height and form: it can be kept as a low, medium or high hedge, used as topiary or if left unpruned, will grow to a small tree reaching 5 to 6m tall.

However, seed grown plants are fertile and in recent time have appeared on weed lists of various agencies and departments. The key to the success of growing non seeding/non weedy Orange Jessamine lies in the selection of propagation material that is sourced from reliable non seeding parent plants.

Prior to 1950, Orange Jessamine was grown for the nursery trade from seed¹. In about 1960, Rex Jurd (Smart's nurseries) selected a variety that had desirable features (may have come from Hazelwood nursery, Epping) and maintained the features by growing cuttings (asexual reproduction) using the "bottom heat" and "mist propagation" techniques. Due to the success of these techniques, Smart's became the main supplier of *Murraya paniculata* to the nursery trade and retail market in the 1960s. This clone was sterile and plants of this

clone do not bear fruit. In the nursery trade, the clone seems to have been called *Murraya paniculata* and the seed grown plants *Murraya exotica*.

Murraya paniculata increased in popularity in the 1980s and 1990s. Seeing the potential market for the plants, a number of Queensland producers became interested in growing *Murraya*. They found propagation by cutting difficult and resorted to growing *Murraya* from seed. Therefore a large number of these seed produced plants were released onto the market at that time. During that period, it was reported that many seedlings were observed in the bush around Alstonville NSW (John Lawrence, pers. comm., Bau Farm nursery). Currently, there are many small backyard producers in the northern parts of NSW growing and selling the seeding variety through weekend and other markets. Unfortunately the Nursery and Garden Industry has no measure of control over the quality of stock sold through those markets.

In 1998 a new cultivar of *Murraya paniculata* called 'Min-A-Min' was registered with Plants Breeders Rights office by Garrad's Nursery in Queensland. This cultivar is stated as having an "absence" of fruit in the official data listed in the Plant Varieties Journal (1998 Vol.11 No 3). However, prolific fruiting has been observed on a specimen of Min A Min (Michael Gleeson, pers. comm.).

In 2000 Michael Gleeson registered the cultivar 'Mini Mike' with The Plant Breeders Rights office. This clone is a spontaneous bud sport from the Jurd/Smart's clone and is therefore sterile. If we want to keep Orange Jessamine out of the bush and off the weed lists of the future there is only one way to do it that meets the needs of the nursery industry, gardeners and weed control authorities. The introduced species must be propagated only from sterile and non seeding clones. Alternatively, in some situations, particularly in Qld, the native *Murraya ovatifoliolata* could be used.

For further information about *Murraya* please don't hesitate to contact Michael Gleeson (02) 9627 4430 or Del Thomas (02) 9679 1472

Thank you to Delwyn Thomas from the Nursery and Garden Industry Association for providing the information for this article.....



Introduced Murraya
Photo credit:
www.lismore.nsw.gov.au

¹ History of *Murraya* propagation from Michael Gleeson, Australian Horticulture Magazine

- WEED WARNING -

ORANGE JESSAMINE

Murraya paniculata



Photo credit:
G. Batianoff

Orange Jessamine/Mock Orange are evergreen shrubs of the genus *Murraya*. Originally from south-east Asia and Australia, they produce abundant fragrant, creamy white flowers. There appears to be much taxonomic confusion within the genus *Murraya*. The names *Murraya ovatifoliolata* or *M. paniculata* var. *ovatifoliolata* appear to be used for the native of Australia. This native plant (also known as the native Mock Orange) is found in drier rainforest communities in central and northern Qld, NT and WA where it grows as an understory or midstorey shrub usually up to 3m high, particularly along forest edges. The native species is differentiated from the introduced species by rounder, more olive-coloured foliage. The native is slower growing than the exotic species, however it is hardy, drought tolerant and adaptable to sun and partial shade.

The plants most commonly in cultivation probably originated from Asia. These are usually described as *M. paniculata* or *M. exotica*. This introduced *Murraya* has glossy green foliage and its dense twiggy habit has made it popular in gardens as a hedge or privacy screen. The species has gained popularity as a garden plant since the 1950s. The introduced *Murraya* is listed on the Weeds Australia website as first recorded as naturalised in Sandgate, southern Queensland in 1963. Apparently, the seeding variety is invasive and is naturalising in south-east and central Qld and has the potential to become a serious weed in northern Qld. The seeds are dispersed by birds. Only the non-seeding clone should be used in gardens and landscaping.

Small seedlings can be hand-pulled and larger plants can be cut, scraped and painted with glyphosate. Please contact your local Weeds Officer for details of control methods.

NEW BOOKS, CD-ROMs etc HOT OFF THE PRESS!!!

Weedy Sporobolus Grasses Best Practice Manual 2007. NSW and Qld DPI.

A new manual to help landowners to tackle giant Parramatta grass, giant rat's tail grass and other weedy Sporobolus grasses has recently been published. Giant Parramatta Grass is a declared noxious weed that has invaded large areas of pasture on the north coast and is a major threat to grazing lands. The manual examines a variety of common weed situations and readers are presented with a "best bet" strategy for each situation. The strategies are based on the latest research and focus on achieving weed control in a cost effective way. The manual is available free-of-charge from NSW DPI Grafton 6640 1600 or the NSW DPI bookshop at Orange 1800 028 374.

"Landcaring for Young People" Some "how to" suggestions for schools and youth in the New England and North-West slopes regions of NSW. Nov 2007.

by Ruth Tremont. A very useful booklet that includes topics such as integrating "Landcaring" into existing curricula, linking schools with other organisations, hints for setting up successful projects, forming landcare groups, obtaining funding, sponsorship etc. Available for free download from the Southern New England Landcare website web.snelcc.org.au

Environmental Weeds of Australia DVD-ROM by S. C. Navie and S. W. Adkins, University of Qld. Details coming soon....watch this space....

Request for info on dune weeds

The NSW Scientific Committee is seeking any information or advice on introduced strandline species including Sea Spurge (*Euphorbia paralias*) or other species (apart from the obvious e.g. Bitou Bush) and whether they adversely affect native species. Flora of NSW records Sea Spurge as a problem weed of southern coastal NSW (Narooma) and in other States. Could you please advise John Nagle 6627 0123 of any information to pass on to the Committee, to assist them in their consideration of this species and others as a key threatening process.

USEFUL RESOURCES

Wetland Link

WetlandLink is a website and electronic newsletter that advertises grant programs for environmental management works and is specifically tailored for coastal/eastern NSW. The site shares stories of inspiring case studies and research and offers guidelines to assist landholders to achieve environmental management projects. Visit www.wetlandlink.com.au

Rainforest Species Photo Library

Uncertain about the identity of a species that is flowering in your patch of rainforest? Browse the stunning photos taken by Hugh Nicholson on the on-line Terania Rainforest Publishing Photo Library. These professional photos are also available for use in publications for a fee. Visit www.rainforestpublishing.com.au

Environmental Law Line

The Environmental Defenders Office offers a free telephone advice service. If you require legal advice on a public interest environmental or planning law issue, you can call the Northern Rivers number 1300 369 791, 9am-5pm, Mon-Fri. This number covers all areas from Tweed to Taree and inland to Walcha, Armidale, Glen Innes and Tenterfield.

Tweed, Byron, Ballina, Lismore, Kyogle & Richmond Valley LGA (Far North Coast Weeds area) update

Inspectorial

A total of 1,253 inspections were completed in the quarter to December 30th, 2007, with 34% of inspections completed identifying new infestations of noxious weeds and insufficient control measures in place. Thirty-seven percent of properties inspected were found to have no noxious weeds present at the time of the first inspection or were conducting control programs in accordance with the noxious weeds control class. Just over one percent of properties reinspected required weed control notices, reminder notices or SEINs warnings to be issued. This quarter, 41 Notice of Intent to Serve Notice's were issued to occupiers, no Property Weed Management Plans were developed this quarter.

Inspections this quarter were limited in rural areas due to the quarantine requirements of the Equine influenza and inclement weather conditions. Follow-up inspections were scheduled this quarter of all previously identified aquatic weed infestations with

priority given to the invasive plants Water Lettuce (Class 1) and Alligator Weed (Class 2).

Noxious Weeds Status

Class One

Water Lettuce *Pistia stratiotes*

One new site was identified on private property in Kyogle Shire, south of the existing sites at Bonalbo on Peacock Creek Road. No reinfestations were reported at the existing Bonalbo sites. Significant gains towards control of Water Lettuce were achieved in the Kyogle Shire with treatments completed by occupiers on all existing sites at West Wiangaree. These sites have previously been difficult to achieve outcomes at.

Water Lettuce continues to be identified in the mid-Richmond River in the Richmond Valley Shire with Council undertaking control works at Long Lagoon, Swan Bay, Bora, Sandy and Bungawalbin Creeks. A concerted effort over the last twelve months has reduced the degree of infestation to isolated patches and Council will be monitoring these sites in the New Year.

East Indian Swamp Weed *Hygrophila polysperma*

Council's survey of Byron and Wilson creeks has revealed 1,800 individual infestations over 75 kilometres of creek. Further surveys of the original site at Byagnum on the Tweed River have identified 200 individual sites over four kilometres of the river. The extent of this infestation is far greater than originally thought and control of this weed will prove difficult as it is predominately a submerged aquatic. Currently there is a limited control option with anecdotal evidence showing that intact native riparian vegetation is preventing the weed from becoming established. Chemical control is not viable for these locations and Council will be collaborating with the NSW Department of Primary Industries to develop a management plan.

Council's only current option is preventing spread of this weed into uncontaminated waterways through identification of monitoring points, education of aquarium owners and continued surveys of aquatic plant retailers to prevent sale of this declared weed.

Hymenachne *Hymenachne amplexicaulis*

Inspections of all identified infestations have shown high rates of control with density reduced by as much as 90% at some sites. No new infestations have been identified to date and Council began implementing stage two of its control program in January 2008.

No other Class 1 noxious weeds were reported this quarter.

Class Two

Alligator Weed *Alternanthera philoxeroides*

Inspections of the Alligator Weed site at Casino revealed the emergence of this weed on the edge of

the previously treated area. This infestation has been reduced from 20m² to 1m². The re-emergence of this weed after eight months shows the diligence required to ensure eradication of this weed species.

A re-emergence of Alligator Weed was also reported by the occupier at the Byron Bay site. Council's weed control team undertook treatment of this site within seven days of notification.

225 hectares of the Byron and Wilson Creek infestation was inspected this quarter with 31 properties identified as having active sites. To date all these sites have been treated bar one at Woodlawn College which requires notification under Council's Pesticide Notification Plan.

Glush Weed *Hygrophila costata*

No new infestations of Glush Weed were reported this quarter.

Class Three

Broad Leaf Pepper Tree *Schinus terebinthifolius*

Urban inspections in Lismore have identified a substantial infestation on private land in Goonellabah and sporadic backyard planting in the suburb of Lismore Heights. Inspections for Alligator Weed have shown Broad Leaf Pepper Tree to be spreading northward which is believed primarily due to seed dispersal by birds.

Follow-up inspections were undertaken in Kyogle Shire with the infestation at Dyraaba the main focus. Roadside inspections identified one infestation in the Kyogle Township. Control programs have begun with several management plans in development for private occupiers. Council is undertaking control works for a lessee of Forest Enterprises Australia. Inspections in Byron Shire are continuing with occupiers removing identified trees without the need for Council to issue notices.

Chinese Celtis *Celtis sinense*

The spread of Chinese Celtis in urban areas is of a grave concern to Council's Noxious Weeds Officers. Many large trees exist that provide a large seed source for frugivorous bird species and this weed poses a similar problem as Camphor Laurel. While infestations in the north-east of Kyogle Shire have been known of for some time, recent inspections of urban areas of Lismore and Ballina Shires has identified burgeoning populations of Celtis trees on private lands.

Council's inspections have focused on the area west of Lennox Head in Ballina Shire (Ross Lane) and East Lismore and Lismore Heights. Re-inspections were scheduled for December with further inspections undertaken in February 2008.

Chinese Tallow *Triadica sebifera*

Inspections this quarter completed the survey for Chinese Tallow in the township of Casino. Control works are being implemented by private landholders.

Council's focus is currently on removing all isolated infestations before progressing to this core area. Infestations have been identified on private lands in Lismore, Richmond Hill, Skyline Road, Tregeagle Road, Coraki and West Coraki, Alstonville, Ballina, Huonbrook in Byron Shire and Roseberry in Kyogle Shire.

Green Cestrum *Cestrum parqui*

Inspections of urban areas continue to identify Green Cestrum in older suburban areas, a significant infestation of 0.4 hectare was identified on private lands in Wollongbar. Dispersed infestations continue to be identified in the townships of Lismore, Casino and Kyogle, with the majority of these infestations being single plants or small groupings in residential gardens.

Groundsel Bush *Baccharis halimifolia*

Consistently the most reported noxious weed, ten percent of inspections this quarter identified landholders with insufficient control methods in place for Groundsel Bush. Groundsel Bush also has the highest rate of Intent to Serve Notices with 14 served this quarter. Inspections identified scattered infestations in Ballina Shire at Tintenbar, a one hectare infestation at Goonengerry in Byron Shire and dispersed infestations at Dyraaba in Kyogle Shire. Jiggi and the surrounding areas in Lismore Shire are regarded as a core area with inspections identifying over eight (8) hectares of Groundsel Bush over five (5) properties. Inspections in the Richmond Valley area continued to ground-truth infestations identified via previous year's aerial surveys. Groundsel Bush infestations were identified at New Italy, Bora Ridge, Greenridge, Coraki and Casino. Inspections in Tweed Shire were concentrated in the Terranora and North Tumbulgam areas.

Honey Locust *Gleditsia triacanthos*

Infestations were identified in Kyogle Shire at Boorabee on Back Creek Road and the Summerland Way north of Kyogle. Council's inspections for Alligator Weed have also identified a substantial infestation of Honey Locust emanating from north of Lismore along the riparian zone and floodplain of the Wilsons River.

Mysore Thorn *Caesalpinia decapetala*

A substantial infestation of Mysore Thorn was identified on private lands and Council roadsides in the Dunoon and Corndale areas of Lismore Shire, covering two sub catchments and infesting over six (6) kilometres of creek line. This infestation requires significant resources to identify the infestation limits. Eighteen hectares of this invasive plant has been identified to date with Council in negotiations with the North Coast Weeds Advisory Committee to source funding for landholders to assist with initial control works.

Class Four

Camphor Laurel *Cinnamomum camphora*

Council staff have completed year two reports for control of Camphor Laurel on Council land as per the

adopted Management Plan. Contractors will probably be used to complete the identified works and they will also be utilised for other noxious weed control as required when undertaking Camphor Laurel control.

Aerial Inspections

No aerial inspections were completed this quarter due to the quantity of data collected over the previous three years of specific inspections for Groundsel Bush. Council may utilise its aerial survey for identifying aquatic weeds this year.

Summary of inspection activities for the period 1 Oct 2007 to 31 Dec 2007 by Local Government Area

LGA	Number of inspections
Ballina	50
Byron	128
Kyogle	163
Lismore	398
Richmond Valley	210
Tweed	304
TOTAL:	1253

DECC-Far North Coast

Report not received

Forests NSW – Far North Coast

Control of 280ha of lantana was carried out in dieback impacted native forest, Mt Lindesay State Forest in the Richmond Valley. A combination of harvesting and herbicide followed by a hot fire in October 2007 was successfully used to almost totally remove a thick under-storey of lantana. Subsequent planting of 75000 eucalypts was accompanied by massive annual weed growth, but little lantana. This builds on previous work at Donaldson SF where the eucalypt stockings following fire in dieback impacted forests were inadequate – hence at Mt. Lindesay dense planting of gaps & enrichment planting was implemented.

Clarence Shire Update

Co-ordination

Good rain has promoted growth of most weed species in the area, and made it difficult to conduct operational programs, however Council is well underway after the Christmas break. Programs targeting roadsides have predominately taken place.

Aquatic weeds are becoming very topical with the higher rainfall this period. Landholders are having difficulty dealing with Water hyacinth and Salvinia infestations increasing daily. Known 'hot spots' continue to be a problem in the Clarence region. At present these infestations are predominately isolated to floodplain dams and creek systems, with little influence on the Clarence River and other major rivers.

With support of New England Weeds and Tamworth Regional Council, staff were able to inspect weeds in these areas. Weeds included Chilean needle grass, Serrated tussock, Chilean Rice Grass (Espartillo), Nodding thistle, St Johns wort and a swag of other temperate weeds just waiting to make their move to the coast. A trip to the Mid North Coast also highlighted problem weeds in that area.

Work on weed mapping surveys for Sean Brindle - NSW DPI – these maps give a state wide distribution of weeds. Field inspections have also been undertaken at the Lantana Adaptive Management Trials. Plus ongoing support for Landcare groups – mapping – coastal weeds strategy.

Weed identification

- Confirmation received on identification of Leaf cactus *Pereskia aculeata* (National Alert List Weed) - found at Ilarwil on Woodford Island, 2 km west of Maclean. Initial control work has been undertaken with follow up during flowering and prior to dormancy in winter.

Meetings attended for NCWAC

- Finalising Northern Rivers Invasive Plant Action Strategy, Weed Planning Contract and CMA 6 projects – NRCMA and Meri Oakwood

Inspectorial

Inspections on properties were conducted as required, with evidence that landholders are effectively dealing with their noxious weed problems. There were no Section 18 notices served in the last period, which shows the effectiveness of the Weed Officers to gain compliance as required. Weed Officers continue to inspect sites as part of the Aquatic Weed Early Detection Program. An inspection of railways was done with ATRC staff.

Tally

Quarter 2 – Oct to Dec 2007: 243 inspections. A further 478 reinspections were carried out (147 clean, 498 weeds found, 76 clearance, 0 Sec 18 notice, 0 Sec 20 notice).

Operational

Operations constrained due to wet weather. Up to 10 days have been lost to rain.

Pacific Highway and other major arterial roads had noxious weed infestations addressed during this period. Formosa lily and other environmental weeds were targeted from Halfway Creek to Corindi. Also Coolatai Grass was controlled along Iluka Road for NPWS.

Works included Shannon Creek Dam (Lantana), Glory lily controlled in coastal reserves through January – Diggers Camp, Woolli.

Projects

- NR CMA (via NCWAC) projects
 - a) CMA 5 West Clarence Vine Weeds (\$5000): high priority location of Mysore thorn in Cunglebung Ck controlled.
 - b) CMA 5 Clarence Moonflower (\$2000): control of further infestations identified on Susan Island
 - c) CMA 5 Clarence Bitou Bush and Coastal Weeds (\$5100): high priority locations of Bitou bush and associated weeds controlled
- Council projects
 - a) Implementation of Brooms Head VMP: control of high priority environmental weeds, including inspection of all properties and offer of removal from private property through a weed replacement scheme
 - b) Clarence Valley Bitou bush TAP project (\$29000 over 2 years):
 - funding for implementation of Threat Abatement Plan on two Category 1 sites – Wooli and Angourie
 - site specific management plans to be developed, strategic control of Bitou over two seasons and monitoring of impact on threatened species

Weed control for this quarter included:

Bitou Bush – 5 days
Blackberry – 3 days
Camphor Laurel – roadside control
Formosa Lily – 1 day
Giant Parramatta Grass/Giant Rats Tail Grass – 5 days
Glory Lily – 6 days
Groundsel bush – 5 days
Lantana – 5 days
Mysore thorn – 4 days
Privet – 2 days
Salvinia and Water Hyacinth – 10 days
Chinese Tallow – 2 days
Other Projects (various) – 25 days

DECC-Clarence

Clarence Valley

- Completion of outstanding bitou bush works at south Sandon beach Yuraygir NP
- Bush Regeneration and Glory Lily control, north and south Sandon and Diggers Camp-Wilsons Headland area, Yuraygir NP
- Lantana control Bundjalung NP south of Woody Head
- Climbing asparagus fern control and assorted garden escapes/environmental weeds in Iluka NR

- Some groundsel bush control completed in Yuraygir NP but limited due to extensive wet weather.

Forests NSW – Clarence

- Roadside spot spraying of 20km of woody weeds at Chaelundi SF.
- Control of 4km of Cats Claw vine at Myall Creek, Whiporie State Forest, assisting Landcare

NSW DPI – Grafton Weeds Unit

New Aquatic Weed discovered near Taree

During mid January 2008 the Sydney Royal Botanic Gardens identified a weed specimen from the Greater Taree City Council area as *Lagarosiphon*, a Class 1 noxious weed. The specimen was collected by the landowner from a lake, near Taree. DPI head office staff were notified of the discovery through a weed control contractor.

NSW DPI and Council staff inspected the site. All were concerned that the species didn't typically appear like *Lagarosiphon*. Further plant samples were collected and sent to the Sydney Botanic gardens. On the 30th of January the Botanic gardens re-identified the plant as *Mayaca fluviatilis*, Bog moss, not *Lagarosiphon*.

The infestation is contained in an artificial lake approximately 3 hectares in size. This lake is located 100 metres from the Pacific Highway just south of the Johns River village, north of Taree.

Bog Moss *Mayaca fluviatilis* is a submerged and semi-terrestrial aquatic plant. This species may be found in water 1-1.5m deep and stems can grow to 1m in length. Stems are whitish green and the leaves are soft and mossy. Flowers are whitish to pink and are 1-2 centimetres in width.

Bog Moss is native to tropical America and has caused problems in Puerto Rico where it is presumably native. Although not reported as naturalised anywhere in Australia, the species is banned from sale in Western Australia. There is limited literature on this plant, most of which comes from the USA.

Bog Moss has been used in the aquarium industry for many years, but it doesn't currently appear to be a popular plant. An aquarium business at Taree has it listed for sale on their website.

New Zealand and NSW DPI officers have assessed the species using the aquatic plant weed risk assessment process and determined the overall risk as low. A score above 50 triggered inclusion in a list for National ban on sale. The species scores well below this, and also below another species *Elodea canadensis* which is an irrigation weed.

At this stage NSW DPI is regarding the weed as a low risk, the species and location will be monitored, if the situation or information changes, further action may be taken.



Bog Moss, *Mayaca fluviatilis*
Photo credit: University of Florida

Noxious Weed Grant Applications 2008-09

Forms are now available from the DPI weeds extranet. Applications are due in Orange by the 2nd of May.

Alligator Weed best practice manual

This manual has been printed and was launched in Newcastle on the 26th of February. The Manual brings together all the latest and most up to date information on impacts, ecology, spread, control options and successful case studies for Alligator weed. Copies of the manual are available from the DPI Bookshop in Orange and via our website at;
<http://www.dpi.nsw.gov.au/agriculture>

A new alligator weed early detection brochure for farmers has also been produced.

Cabomba Projects

Herbicide Trials (David Officer and Sue Hayward)

- glasshouse trials for two herbicides have been assessed
- field trials for Stingray. This has already been lab trialed and shown to be highly effective
- Field trials have been undertaken at sites in the Great Lakes, Clarence Valley and Ballina Council areas.
- Results will support further research towards getting either product Australian registration; the process is likely to take 2-3 years.

Lantana Biological Control

A new lantana biological control agent is being bred and released from the Grafton DPI glasshouses. The leaf mining fly, *Opiomyia camarea* numbers are currently being established before the agent is released into suitable sites. Once established, the fly larvae can cause plant defoliation, reduce flowering and seed ability and can stunt plant growth.

Coffs Harbour Update

Inspectorial

An aerial inspection was conducted on 12 February 2008 principally for Groundsel Bush. The area surveyed included the Orara Valley, Fridays Creek, Coramba and Eastern Dorrigo.

Ground based inspections have been carried out in;

- Woolgoolga and northern beaches for Groundsel Bush
- Sawtell for Broad leaf Pepper Trees and Yellow Bells
- urban Coffs Harbour for Chinese Celtis and Yellow Bells.

Approximately 70 notices, principally S18 have been issued for failure to comply with S18A Notices.

The ongoing wet weather has lead to a delay in the inspection program.

Operational

Salvinia – two new infestations found on private land at Boambee. The heavy rainfall has washed significant amounts downstream creating more infestations requiring control. *Cryptobageous* have been introduced in an attempt to reduce the Salvinia population biologically.

Hygrophila – 10 further small infestations were located downstream from the original location at the Nana Glen Bridge. Constant rain has resulted in high river flows preventing any further work from being done.

Roadsides and Reserves – targeted Groundsel Bush, Lantana and some environmental weeds. Wet ground has prevented access to many sites.

Roadside Camphor Laurels – continue to spray trees to 3m throughout the City. Council's tree crew removed 10 large trees before seeding commenced. Ongoing.

Wickwiping Program – 'chemical mowing' of Giant Parramatta Grass and other tall grasses is being carried out as part of the regular reserves maintenance programme. Advantages include a shorter mowing cycle as mowing can now be done at a faster rate because of lower grass density.

Future Activities

- Aerial inspection and planning of 2008 Bitou Bush program with DECC in the Coffs Coast Regional Park and State Park.
- Completion of Environmental Levy roadside Camphor Laurel program, including replanting of selected sites.
- Implementation of Chinese Tallow removal program, particularly Lowanna.
- Ongoing programs for the control of Lantana, Broad leaf Pepper Trees, Chinese Celtis and Groundsel Bush on Council land throughout the city.

DECC-Coffs

Recent activities

- Planting of 1300 trees at Back Sandy Beach Moonee Beach NR in March.
- Major restoration program Bongil Station Rd Bongil Bongil NP using soil (from a forested site) stockpiled by Abigroup as part of Pacific Highway upgrade. The site had a serious groundsel infestation.
- Implementation of CMA funded project at Moonee Beach NR and Valla NR and Station Creek/Red Rock area of Yuraygir NP.
- Extensive glory lily control program Bongil Bongil NP: Tuckers Rock to Bundagen and Scrub Creek.
- Formosa Lily, Groundsel, Senna, Bitou bush and lantana control Yuraygir NP south of Red Rock.
- Expansion of bitou pathogen (*Hendersonia* species) within Bongil Bongil NP. Several hectares of infestation dead. Unfortunately several native species also appear to be affected. Research being conducted by a CSIRO employee on a part time basis.

Training

- Repair to country team have started in Coffs Harbour LGA. Four trainees and a supervisor. Working 4 days per week and a day at TAFE doing Conservation Land Management Cert 2. Employed by a Steering Committee via ETC, working from CHCC depot. Inducted by NPWS staff re: tools, herbicides etc. Working with elders doing site inductions in February and March.

Forests NSW – Coffs

- Roadside spraying of 8km of Singapore Daisy at Pine Creek SF.

Bellingen Shire Update

Noxious Weed Administration & Inspection *Rain/Christmas*

A quiet period for Bellingen shire with the combination of the Christmas period and persistent rainfall.

Gorse MOU

Bellingen Shire Council have agreed to enter a Memorandum of Understanding with The National Gorse Management Group for the future management of a single Gorse infestation at Dorrigo. The MOU commits Council to follow up inspection in order to attempt eradication of the infestation. Fortunately the infestation is on a single property with a landholder who has been actively controlling it for 15 years.

Dorrigo Mountain Inspections

Council are working in conjunction with National Park & Wildlife (DECC) on a cooperative weed management program for the Dorrigo Mountain. Weeds such as Senna, lantana, Coastal Wattle and vine weeds are being targeted.

St John's Wort Report

Council has been advised of a suspected St Johns Wort outbreak at Cascade. This is to be investigated in near future,

Prospective Purchaser Advice

Council has adopted the use of a Leaflet – “Buying in Bellingen Shire? Beware of Weeds”. This flyer is being distributed around the Real Estate Agents and on Council's Website.

Noxious and Environmental Weeds Program of Works

Completed Works – Blackberry and Privet control on Dorrigo Plateau.

Planned Works – Roadside Camphor, groundsel, privet and lantana control. Continuation of Coastal Vegetation Management program.

DECC-Bellingen

Recent activities

- * Planting of 2200 trees Junuy Juluum NP near Dorrigo
- * Huge blackberry growth this year including heavy fruiting. Unfortunately the spray program is running behind due to rain

Forests NSW – Bellingen

- Control of 15ha of Groundsel at Tarkeeth State Forest

- Roadside spot spraying of 10km of woody weeds at Wild Cattle Creek SF

Nambucca Shire Update

Inspectorial activities

During the October to December quarter inspections were carried out through various areas of the Nambucca Shire. Giant Rats Tail Grass infestations were identified to be growing in the Utungun (west of Macksville) and Valla rural areas. Some land holders were not aware of the difference between Rats Tail and Parramatta Grass, but all had some form of management plans implemented. Wick wiping programs that were utilized by some of these producers appeared to be ineffective in reducing infestations and it was suggested to also utilize other management techniques, such as lowering stocking rates, pasture improvement and boom spraying with fluproponate based herbicides to prevent the spread of this invasive grass species to uninfested areas.

Groundsel bush infestations were also located, with one landholder using a fire control regime followed by herbicide application to subsequent seedling recruitment with good results. This form of control had reduced an approximate 1.5 hectare infestation of mature Groundsel bush plants to a very small number of seedling reemergence in the area of infestation in a 3 year period. Other Noxious weeds that were identified included Noogoora Burr, Salvinia and Water Hyacinth infestations within private lands.

A full inspection of the Rail corridor was conducted in conjunction with an ARTC representative via a high rail vehicle during November. This inspection revealed a small number of Groundsel bush infestations on both private and public lands, which would have been difficult to locate other than via the rail system.

Total number of inspections	167
Number of letters requiring control (Sect 18A)	13
Section 18 – Notice to control	4
Section 20 – Enforced control	0
Total area inspected (hectares)	10967
Total area weed affected (hectares) approx.	528

Completed works

Extensive Lantana, Privet and Camphor Laurel control was carried out throughout the roadside reserve system in the Taylors Arm, Utungun, Tewinga, Bowraville and South Arm areas. Some of the known Groundsel bush infestations within Council managed reserves were also treated in the latter part of this quarter. An infestation of Salvinia and Water Hyacinth was also treated on a small dam in the Nambucca Heads area with Weedmaster Duo, with follow up control planned.

Some stem injection of Camphor Laurels was carried out in the Missabotti, Bowraville and Tewinga areas, with good results. Spot spraying of roadside

Parramatta Grass infestations was performed throughout many areas of the Shire.

Projects

The Nambucca Noxious Weed Inspector attended a New England Weed Authority field day that was very informative and provided the opportunity to develop identification skills for some weed and grass species that are not known to be present within the Nambucca Local Government Area, including Serrated Tussock, Chilean Needle Grass, African Love Grass and Gorse.

The Nambucca Noxious Weed Inspector also attended the final Stage 3 legal training course in Coffs Harbour. This course was highly informative, providing information on performing effective inspections and interviews and giving a greater understanding of the Noxious Weeds Act.

Future Plans

- Extension of Lantana and Camphor laurel control throughout the reserve system
- Control of all Groundsel Bush infestations on Council managed lands prior to flowering
- Follow up control of aquatic weed infestations on public and private lands
- Planning for Bitou Bush control program in the coastal reserve system

Forests NSW – Nambucca

- Roadside spot spraying of 15km of woody weeds at Mistake State Forest

The information contained in this Newsletter is based on knowledge and understanding at the time of writing / compiling (25 March 2008). However, because of advances in knowledge, readers are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer from the NCWAC or appropriate member organization or the user's independent adviser.

When using herbicides always read and follow the label and ensure that the herbicide is registered or there is an appropriate permit for the intended use.