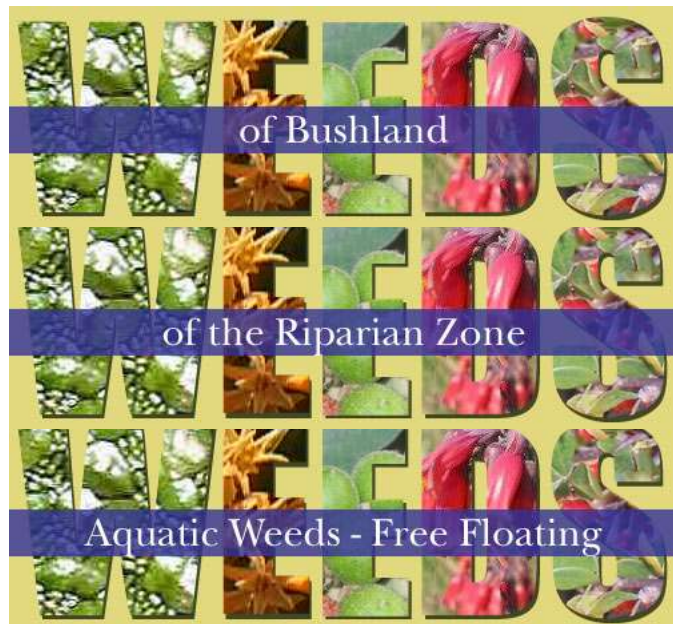
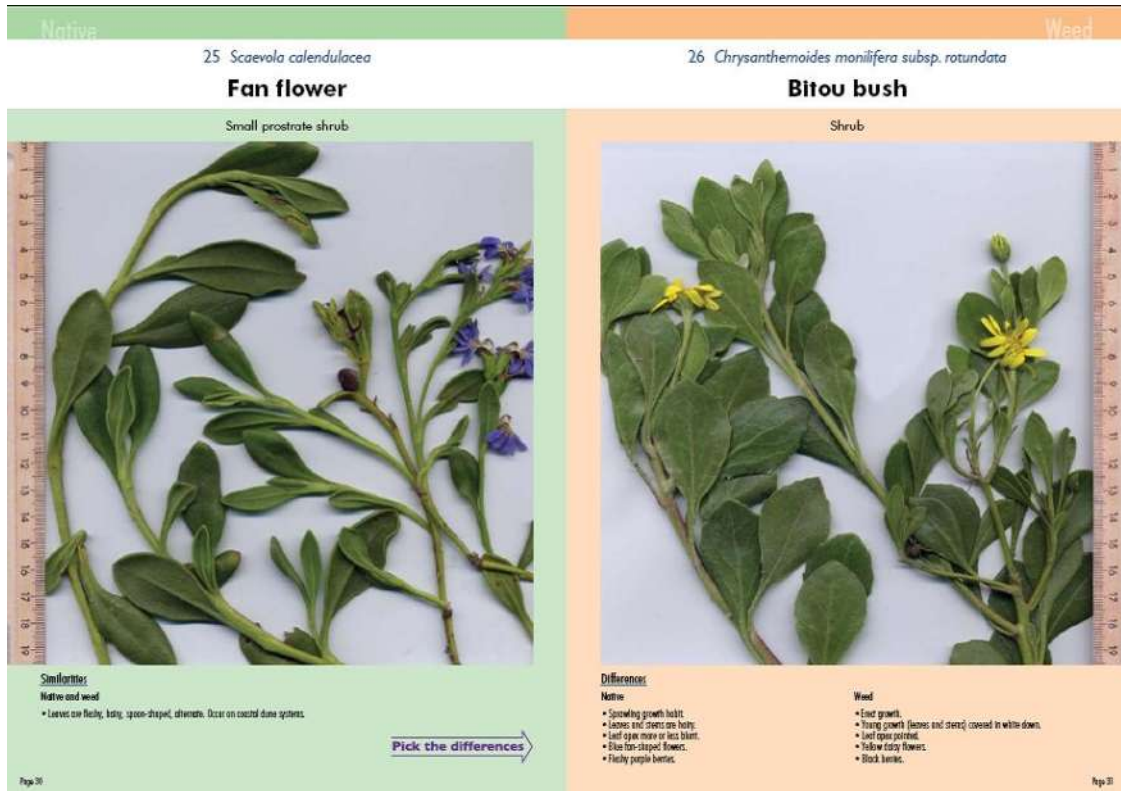


Weed Identification



Weed Identification

When you are starting off in bush regeneration, the most difficult part is discriminating between weed and native species. Usually beginners know a few most obvious weeds, such as Lantana and Bitou, but what they may not know are the indigenous species which resemble these weed species. This sometimes results in native species such as Scaevola and Myoporum being confused with Bitou in

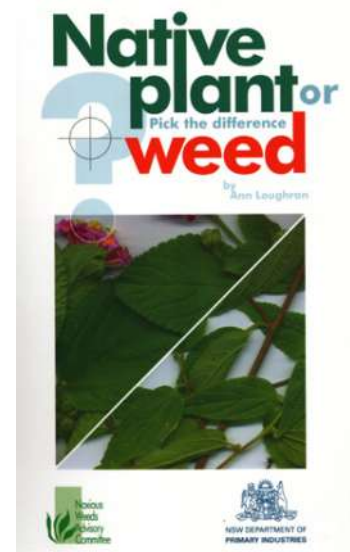


dunal restoration projects, and being accidentally removed.

This is just one example: many weed species have native species that look very much like them. Ann Loughran's book *Native plant or weed? Pick the difference* is an extremely useful local guide.

In the previous workshop on Site Orientation and Native Plant Identification it was emphasised that the focus in any regeneration program should be on the remnant native vegetation community and the native fauna still on site. Any weeding activity which threatens either of these priorities should be avoided.

Unfortunately some popular weeding programs in an attempt to engage the wider community are promoted as a "War Against Weeds" or a "Bitou Bash". As in



Bush Regeneration for Beginners



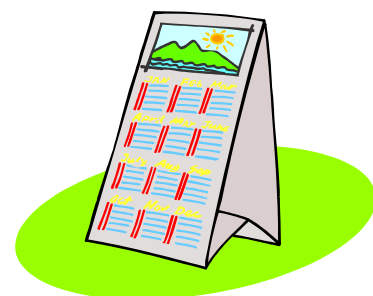
TAKE THE TIME TO GET TO KNOW YOUR SITE AS WELL AS YOU CAN BEFORE YOU DO ANYTHING.

Walk over your site, sit on a log and observe the bird-life, check out the creek in a storm or extended rain event and see where the water flows, give some thought as to how the weeds got there in the first place.

THE BEST BUSH REGENERATION SOLUTIONS ARE LONG TERM.

Start working in small manageable areas, and proceed when these areas are largely self-sustaining. If you gain professional assistance, maximise the professional **regenerators' time on site, and learn as much as you can from** their presence.

A good example of this is the 2005 Rainforest Regeneration Project at Black Jack's Point. Green Point Action Committee Landcare gained funding to allow for 40 days of professional bush regeneration assistance in a rainforest gully. A temptation would have been to allow the regenerators to do a one-off primary weeding by themselves. Instead the Landcare group had the professional team work one day per week for forty weeks, and the volunteers worked alongside the contractors, learning from them as the project continued.



This allowed the whole team, contractors and volunteers, to familiarise themselves with the site over a calendar year, to compile a comprehensive native species list, to find a new occurrence of a Threatened Species, White Cynanchum, and for the volunteers to gain skills to continue the project after the contractors had finished.

A bonus was that one of the contractors, a member of the Hunter Bird Observers, was also able to compile a bird species list over several seasons. This maximisation of resources is a satisfactory outcome for everyone involved in the project.



IF IN DOUBT, DON'T RIP IT OUT!

If you are unsure whether a plant is a weed or native, then leave it until you can find out.



Rainforest Regeneration Near Black Jacks Point. *By Graham Couper*

There is a beautiful little remnant of littoral rainforest at the southern end of Green Point Foreshore Reserve. It contains tall rainforest trees, thick vines, diverse shrubs and soft ferns. It also contains the threatened species *Syzygium paniculatum* Magenta Lilly Pilly and *Cynanchum elegans* White-flowered Wax Plant. But parts of the rainforest had been disturbed by logging or mining, and the site had been invaded by exotic weeds.

Rehabilitation of the rainforest began in March 2005. The on-ground work was done by volunteers from Green Point Action Committee Landcare, contract bush regenerators from Trees in Newcastle (supported by Envirofund and funds from the former Green Point Action Committee Inc), and the Site Supervisor from Green Point Foreshore Reserve. Altogether, 25 people worked on the project. Those who worked often were David Tully, Stephen Sheldon, Win Warner, Don Baird, and Graham Couper (GPAC Landcare); Jason Harvey, Tom Clarke, Carl Fulton, and Janelle Lewis (TIN); and Robin Hewitt (Site Supervisor).

We worked one day a week for 40 weeks. The work consisted almost entirely of removing exotic weeds. Most of the weeds were removed manually. On steep slopes and near creek lines, we cut and poisoned. We placed the weeds in small piles. We left a barrier of weeds around the margins of the site, to slow the incursion of (worse) weeds into the area, and to discourage people from entering the regenerating site.

It was a tough site! The weeds were dense, the slopes were steep, we worked in boiling heat and pouring rain, and the site was infested with ticks. Tom held the record, with 28 ticks in one day! But people stuck at it, with good-humoured patience. At the end of the 40 weeks, after more than 1400 hours work, we had worked through substantially more than the Envirofund grant area.

The site should regenerate naturally. We identified over 120 species of native plants on the site; there should be a good seed bank, and so no need for planting. Already, seedlings of pioneer rainforest species (*Omalanthus*, *Trema*, *Acacia*) and some mature rainforest species (*Daphnandra*, *Acmena*, *Guioa*) are appearing.

The bush regenerators from Trees in Newcastle have **completed their contract. We couldn't have tackled this project without them!** The Landcare volunteers and Robin are doing follow-up weeding and vine pruning - **and watching ... and waiting!**



Weeding Priorities

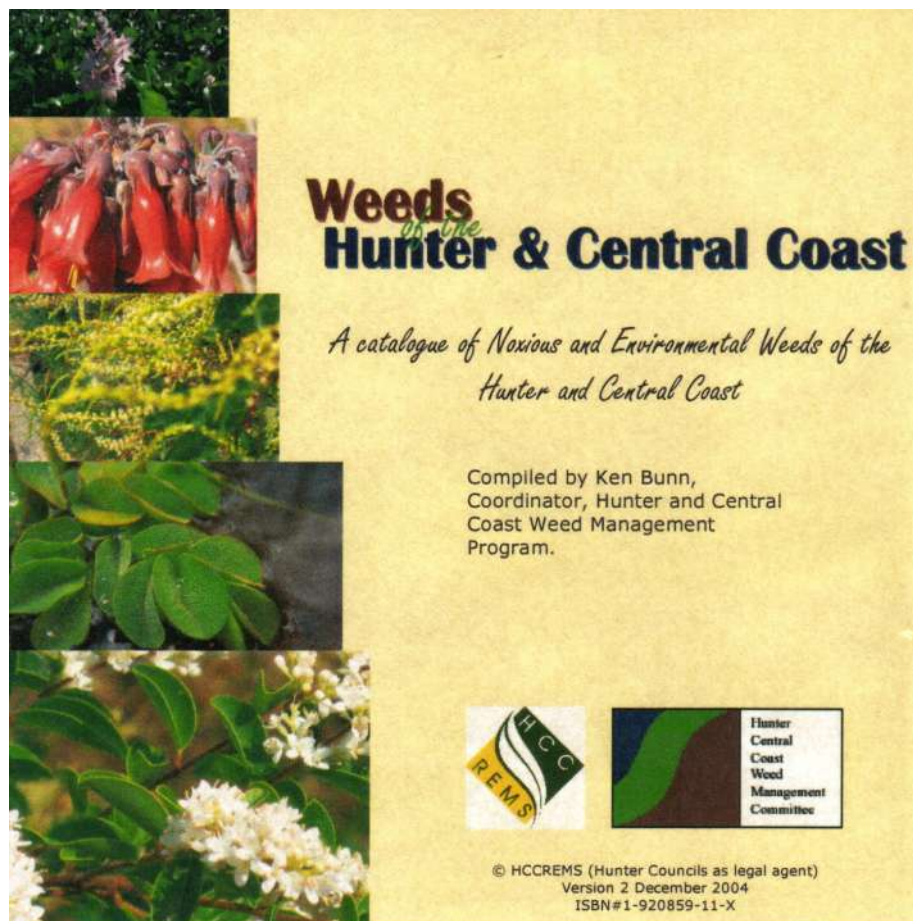
Generally speaking, where a weed species occurs in the structure of a native vegetation community determines its priority, but there are other factors which need to be considered.

Noxious Weeds would be considered priorities by most councils, and if they are found on your site, you should contact the relevant Council Weeds Officer. Noxious Weed listings vary from area to area, but the listings for your area are included in the Workshop notes. There is a column in the Target Weed List for you to note the listing in your area, and you need to follow the management recommendations for the species as outlined by your council.

Many environmental weeds are not listed as noxious, but they may still be the priority weeds on your site. This will vary from site to site. For instance, Buffalo Grass may be considered a priority weed if you are working in Themeda grassland on a coastal seacliff, but if you are working in a rainforest remnant, its priority would be much lower. Shading by the rainforest regrowth would eventually reduce the vigour of the Buffalo Grass, and it could be easily removed.

The following categorisation of weed species on the Target Weed List is based on where the species best fits, but there is some overlapping, and there will be variation from site to site. The list is also not exhaustive, and you may find unlisted weed species on your site.

This CD is available for free from Hunter Councils Inc.
Ph 02 4978 4020
59 Bonville Avenue
THORNTON
NSW 2322



The Noxious Weeds Act

What is a noxious weed?

A noxious weed is any weed that is declared as such and listed on schedule 19 of the Noxious Weeds Act. The act classifies noxious weeds according to their present and potential distribution and their likely impacts on the environment, economy and society. Under the amended legislation there are now 5 classes of noxious weeds (see table of classes)

Who is responsible?

Responsibility for control of noxious weeds under the Act lies with the relevant occupier or landholder on whose land the weed occurs. The person/s responsible for weed control must ensure that noxious weeds are controlled to the extent specified in the control measures for that class. Class 1, 2 & 5 weeds are notifiable meaning that landholders must notify the Local Control Authority (council) of the occurrence of new infestations of these species and the movement, sale or distribution of these species is not allowed. There may also be restrictions on the sale of some class 4 weeds -your local council Weeds Officers should be consulted for more information on this or see www.dpi.nsw.gov.au/agriculture/noxweed

Where noxious weeds occur on waterways the adjacent landholders are responsible for weed control up to the mid point of the waterway where the waterway is not fenced off. Where one side of a waterway is fenced off the landholder on the unfenced side is responsible for control across the width of the waterway. In the case that both sides are fenced off the adjacent landholders are not responsible for infestations occurring on the waterway.

Class	Class title	Prescribed control measures
1	State Prohibited Weeds	Prevent establishment in NSW. Eradicate from the land and keep the land free of the plant. A person must comply with the requirements on the Act for a notifiable weed
2	Regionally Prohibited Weeds	Prevent establishment in the region. Eradicate from the land and keep the land free of the weed. A person must comply with requirements in the Act for a notifiable weed
3	Regionally Controlled Weeds	Reduce the area and the impact of the plant in the region. The plant must be fully and continuously suppressed and destroyed
4	Locally Controlled Weeds	Minimise the negative impact of the weed on the economy, community or environment. The growth and spread of the weed must be controlled to the extent specified by the local control authority
5	Restricted Plants	Prevent introduction to NSW, the spread of the plant within NSW or from NSW to another district. A person must comply with the requirements of the Act for a notifiable weed. The requirements for s15 do not apply to Serrated tussock, Blackberry, Chilean Needle Grass, Lantana, Bitou Bush, Boneseed, Willow or Gorse

Common Name	Port Stephens	Newcastle	Lake Macquarie
Rope Pear	4	4	4
Bathurst Bur	4	4	4
Long-Leaf Willow Primrose	4	4	4
Bitou Bush	4	4	4
Creeping Oxalis	5	5	5
Broad-leaved Privet		4	
Giant Parramatta Grass	3	3	3
Chinese Violet	1	1	1
Water Hyacinth	4	4	4
Mother of Millions	3	3	3
Small-leaved Privet		4	
Paterson's Curse	4	4	
Pampas Grass	4	4	4
Tiger Pear	4	4	4
Crofton Weed	4	4	4
Green Cestrum	3	3	3
Prickly Pear	4	4	4
St John's Wort	4	4	4
African Boxthorn	4	4	4
Blackberry	4	4	4
Lantana	5	5	5
Alligator Weed	3	3	3



Canopy threatening vine species

can destroy whole ecosystems in forest communities. If they are present on your site, they should be a high priority. The sooner these types of weeds are tackled the better.



Morning Glory
Ipomea indica



Present	Common Name	Scientific Name	Category
	Black Eyed Susan	<i>Thunbergia alata</i>	
	Japanese Honeysuckle	<i>Lonicera japonica</i>	
	Madiera Vine	<i>Anredera cordifolia</i>	
	Mile a Minute	<i>Ipomea cairica</i>	
	Morning Glory	<i>Ipomea indica</i>	
	Moth Vine	<i>Araujia sericiflora</i>	

Prolific seeders

which can dominate a site to the exclusion of native species are next on the priority list. The most obvious example of this in Lower Hunter coastal areas is Bitou Bush in dunal systems.



Bitou Bush
Chrysanthemoids monilifera
spp. *rotundata*

Present	Common Name	Scientific Name	Category
	African Olive	<i>Olea europaea</i> spp. <i>africana</i>	
	Bitou Bush	<i>Chrysanthemoids monilifera</i> spp. <i>rotundata</i>	
	Boneseed	<i>Chrysanthemoids monilifera</i> spp. <i>monilifera</i>	
	Bridal Creeper	<i>Myrsiphyllum asparagoides</i>	
	Broad Leaved Privet	<i>Ligustrum lucidum</i>	
	Camphor Laurel	<i>Cinnamomum camphora</i>	
	Cassia	<i>Senna</i> spp.	
	Castor Oil Plant	<i>Ricinus communis</i>	
	Lantana	<i>Lantana camara</i>	
	Pampas Grass	<i>Cortaderia selloana</i>	
	Small Leaved Privet	<i>Ligustrum sinense</i>	

Ground covering species, which can displace native groundcovers such as terrestrial orchids or native ferns are next on the list. Ground Asparagus Fern is locally an obvious example of this type of weed.



Asparagus Fern
Protasparagus aethiopicus

Present	Common Name	Scientific Name	Category
	Asparagus Fern	<i>Protasparagus aethiopicus</i>	
	Blackberry	<i>Rubus fruticosus (agg. spp.)</i>	
	Fishbone Fern	<i>Nephrolepis cordifolia</i>	
	Prickly Pear	<i>Opuntia spp.</i>	
	Turkey Rhubarb	<i>Acetosa sagittata</i>	
	Wandering Jew	<i>Tradescantia fluminensis</i>	

Aquatic weeds

are generally freshwater weed species, many of which are also listed as Noxious Weeds. There are also some saltwater aquatic weeds but these are not listed here.



Salvinia
Salvinia molesta

Present	Common Name	Scientific Name	Category
	Alligator Weed	<i>Alternanthera philoxeroides</i>	
	Crofton Weed	<i>Ageratina adenophora</i>	
	Mistflower	<i>Ageratina riparia</i>	
	Salvinia	<i>Salvinia molesta</i>	
	Water Hyacinth	<i>Eichhornia crassipes</i>	
	Water Lettuce	<i>Pistia stratiotes</i>	

Garden escape weeds

are always a problem on urban landcare sites, less so in country areas, and there are probably many more species than those on the Target Weed List. Densities of such weeds will vary from site to site depending upon what is planted in surrounding gardens.

HICCREMS 2004



Mother of Millions
Bryophyllum delagoense



Cape Ivy
Delairea odorata



Mickey Mouse plant
Ochna serrulata

S. Pritchard 2007



Wild Watsonia
Watsonia maeriana

Garden Escapees

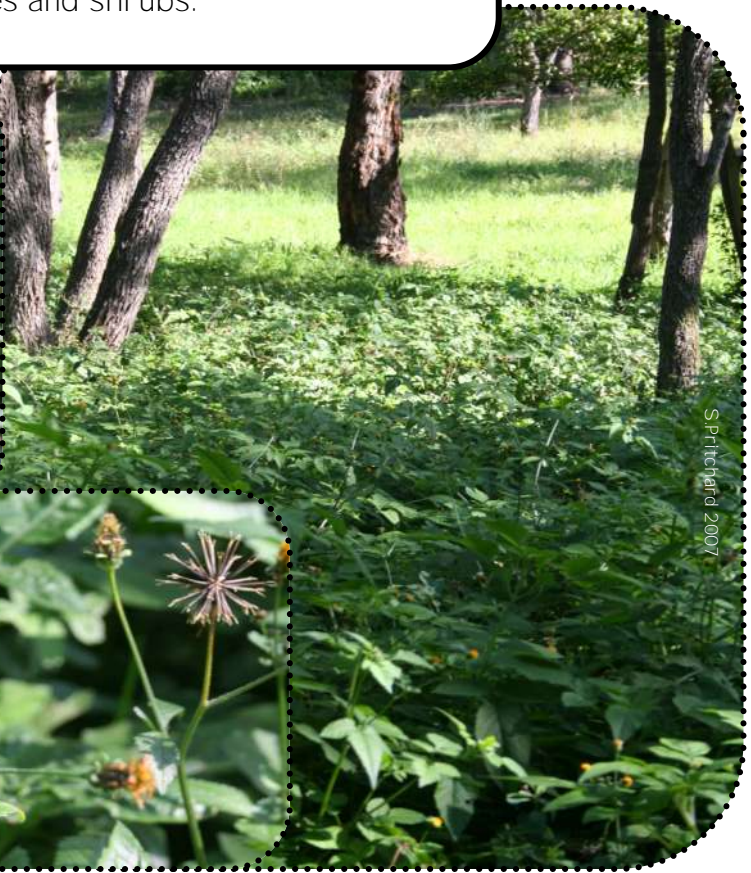
Present	Common Name	Scientific name	Category
	Agapanthus	<i>Agapanthus</i>	
	Arum Lilly	<i>Zantedechia aethiopica</i>	
	Bamboo/Giant Reed	<i>Arundinaria spp.</i>	
	Black Bamboo/Golden Bamboo	<i>Phyllostachys spp.</i>	
	Buffalo Grass	<i>Stenotaphrun secundatum</i>	
	Canna Lilly	<i>Canna indica</i>	
	Cape Ivy	<i>Delairea odorata</i>	
	Cotoneaster	<i>Cotoneaster spp.</i>	
	Couch	<i>Cynodon dactylon</i>	
	Formosa Lilly	<i>Lilium formosanum</i>	
	Fruit Salad Plant	<i>Monstera deliciosa</i>	
	Gazania	<i>Gazania rigens</i>	
	Glory Lilly	<i>Gloriosa superba</i>	
	Green Cestrum	<i>Cestrum parqui</i>	
	India Hawthorn	<i>Raphiolepis indica</i>	
	Kikuyu	<i>Pennisetum clandestinum</i>	
	Mickey Mouse Plant, Ochna	<i>Ochna serrulata</i>	
	Mother in Laws Tongue	<i>Sanservia spp.</i>	
	Mother of Millions	<i>Bryophyllum delagoense</i>	
	Nasturtium	<i>Tropacolum majus</i>	
	Norfolk Island Hibiscus	<i>Lagunaria patersonia</i>	
	Pine Tree	<i>Pinus spp.</i>	
	Umbrella Tree	<i>Scheffera actinophylla</i>	
	Wild Watsonia	<i>Watsonia maeriana var. bulbillifera</i>	

Ephemeral weed species

are generally annuals, and although persistent on many sites, they generally don't pose a threat to native trees and shrubs.



S.Pritchard 2007



S.Pritchard 2007

Cobbers Peg
Bidens pilosa



Present	Common Name	Scientific Name	Category
	Catsear	<i>Hypochaeris radicata</i>	
	Cobbers Peg	<i>Bidens pilosa</i>	
	Fat Hen	<i>Chenopodium album</i>	
	Fleabane	<i>Conyza spp.</i>	
	Plantain	<i>Plantago spp.</i>	
	Sorrel	<i>Oxalils spp.</i>	

Acknowledgements

Carl Fulton for sharing his vast botanical knowledge and understanding of the site orientation and bush regeneration processes by compiling the information contained in this document.

Suzanne Pritchard for the layout and desktop publishing

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Front cover Weed images -HCCREMS (2004) Weeds of the Hunter and Central Coast. A catalogue of Noxious and Environmental Weeds of the Hunter and Central Coast.

Page 2 Fan Flower and Bitou Bush, book cover -Ann Loughran (2006) Native Plant or Weed Pick the difference. Dept Primary Industry

Page 10 Cape Ivy <http://www.sydneyweeds.org.au/weeds/cape-ivy.php> (accessed 30/7/07)

Page 15—Long-Leaf Willow Primrose, Chinese Violet, Mother of Millions, Crofton Weed,,Green Cestrum- HCCREMS (2004) Weeds of the Hunter and Central Coast. A catalogue of Noxious and Environmental Weeds of the Hunter and Central Coast.

Useful people

The Site Orientation Booklet in this series has a useful contact list including

Coastcare Officers

Landcare and Community Support Officers

National Parks Officers

Land Managers



252 Parry Street
Newcastle West, 2302

Ph 4969 1500

Fax 4927 6821

enquiries@treesinnewcastle.org.au

www.treesinnewcastle.org.au

