

Hunter Region Landcare Network



Head Office: Hunter Wetlands Centre, 1 Wetlands Place, Shortland (Newcastle)

Muswellbrook Nursery: Muswellbrook Sustainability Hub, 127 Sydney Street, Muswellbrook

Merriwa Nursery: Hacketts Road, Merriwa



This initiative is made possible by the NSW Landcare Program.
A collaboration of Local Land Services and Landcare NSW
supported by the NSW Government.

Hunter Region Landcare Network



Staff:

Stacy Mail – Lower Hunter Local Landcare Coordinator
Meg Drinan - Mid Hunter Local Landcare Coordinator
Paul Melehan – Upper Hunter Local Landcare Coordinator
Helen Rubeli - Landcare Support Officer
Josephine O'Brien – Regional Landcare Coordinator

Executive:

Balaji Sheshadri - President
Stephen Thatcher - Vice President (and founding member)
Lyn Morris - Secretary/ Treasurer
Wendy Heys - Advisor



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Purpose of this webinar



To improve your confidence using Terry Inkson's electronic 4th edition of his publication ***Garden Escapees and other weeds of bushland and reserves***, and demonstrate how the hyperlinks and symbols work, so you can gain the most out of the book, in the field and at home.

This presentation will be made available on our website in the members section.

So don't panic! You don't have to remember everything!

How can this book help your Landcare group?



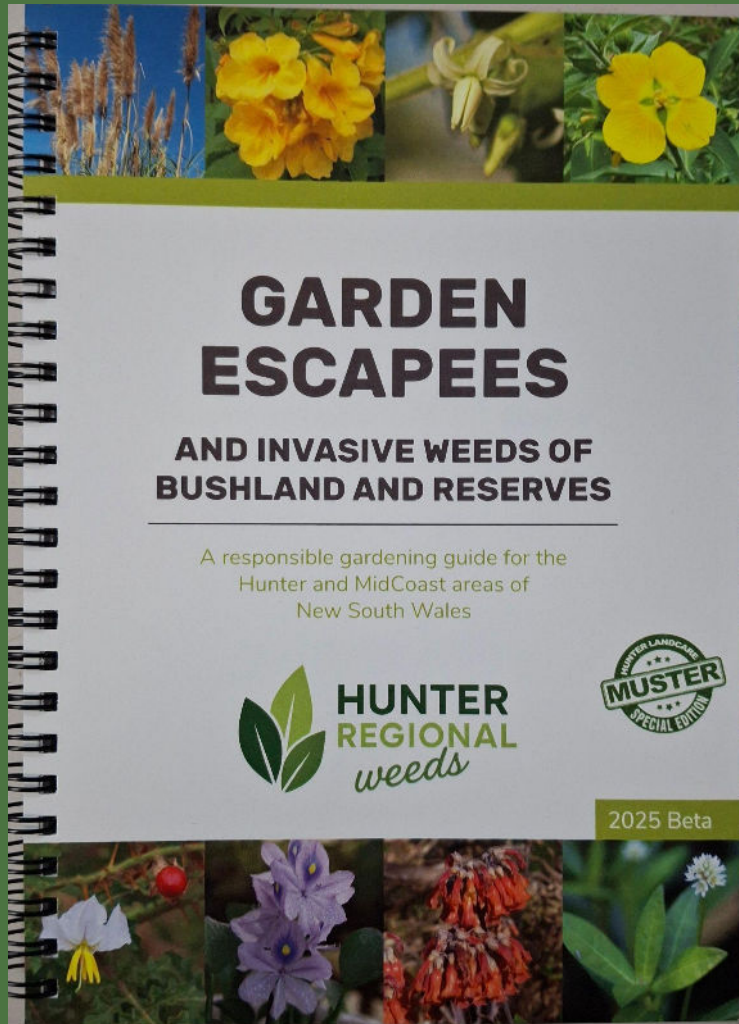
- The book used to have a focus on the Mid Coast area weeds. We have been working with Terry to incorporate Upper, Mid and Lower Hunter weeds, making it more relevant to our Landcare Groups. The 'Muster Edition' is the first product of this collaboration. He is continuing to work on this edition.
- This book can be used at home or in the field on your computer, laptop, ipad or phone, to help you identify weeds and treat them.
- The book has electronic links on every weed page. These send you directly to reputable nationally and internationally recognised webpages giving you specific information on that particular weed, allowing you to target weeds on your site (no 'trawling' through pages to find your weeds of concern).
- Become more aware of your Biosecurity duties, and know who to contact and how.
- Terry recognises the hard work our Landcare Groups put in to reduce weed impact and strengthen biodiversity. He wants your feedback so he can continue to update the book to enable you to continue your great work on the ground.

A bit of background on The Legend: Terry Inkson!



- Terry Inkson is currently Cessnock City Council's Biosecurity Management Coordinator.
- Terry has over 40 years in the horticultural sector, spanning nursery management, council landscaping, and administration, civil construction, horticultural advisory roles, biosecurity management and membership with the Australian Institute of Horticulture.
- Terry was at our Landcare Muster, and gave a demonstration on how to use his book.

A History: Garden Escapees



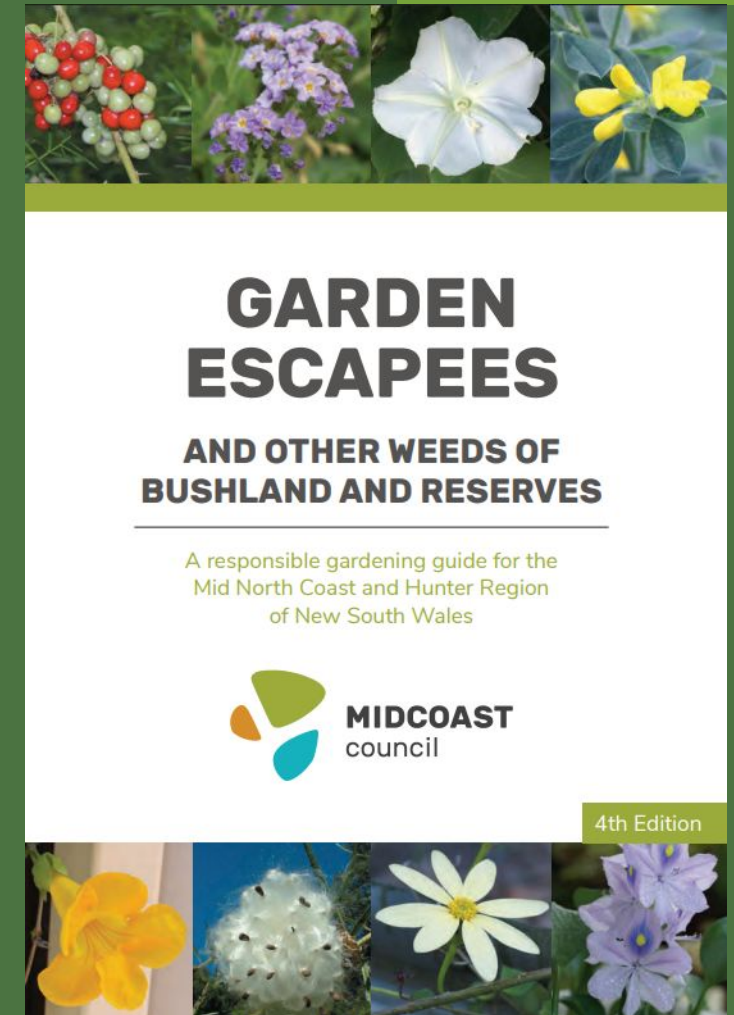
- Terry produced the first edition of the now well-known book ***Garden Escapees and Invasive Weeds of Bushland Reserves*** in 2006, as a testament to his enduring dedication in sharing his lifelong passion and knowledge to assist us in dealing with our weeds. Since then, Terry has worked enthusiastically and tirelessly, continuing to update this valuable resource.
- It has recently gone up to 199 pages, and is still under construction!
- This book is now in its 4th edition (4B Muster edition). It is currently under construction -and Terry wants your feedback! –More on that later.

Hard copy and Electronic copy

There is the hard copy of the book.

There is also an electronic copy of the book. (I have sent a link to this). It can be downloaded on a computer, laptop, ipad or phone.

This is the 4th Edition. The Muster edition is not available online yet.



Beyond the book: A Hidden Electronic Resource!

Look at the inside cover of the book.

The coloured symbols are hyperlinks that you can click on. When you click on these, they will take you to a webpage with information on the weed.

Look out for symbols throughout this booklet that identify priority values

Look for hyperlinks throughout the electronic resource to internal pages and various credible resources.



High Risk to
Socio-economic
Values GBD



High Risk to
Biodiversity GBD



High Risk to
Biosecurity



Global Invasive
Species Database



Weed of National
Significance (WoNS)



Not to be sold or
traded in NSW



Seed spread long
distances by birds



Gardening
RESPONSIBLY



NSW
WeedWise



Known to be toxic
or injurious to
humans or animals



Biological control
establishing



PlantNET
Floraonline

Links – Where do they take us?

These 3 links take you to the Biosecurity Act 2015 No 24.



High Risk to
Socio-economic
Values GBD



High Risk to
Biodiversity GBD



High Risk to
Biosecurity

Links – Where do they take us?



- **IUCN : Global Invasive Species Database:** The Global Invasive Species Database was developed and is managed by the **Invasive Species Specialist Group (ISSG)** of the **Species Survival Commission (SSC)** of the **International Union for Conservation of Nature (IUCN)**. The Global Invasive Species Database is a free, online searchable source of information about alien and invasive species that negatively impact biodiversity. It lists **100 of the World's Worst Invasive Alien Species**.
- **Weeds of National Significance:** Listed on the 'Weeds Australia' website. Lists the Thirty-two Weeds of National Significance (known as WONS), which have been identified based on their invasiveness, potential for spread and environmental, social and economic impacts.
- **Not to be sold or traded in NSW:** Takes you to the NSW Crime Stoppers webpage, a Police reporting webpage.



Global Invasive
Species Database



Weed of National
Significance (WoNS)



Not to be sold or
traded in NSW

Links – Where do they take us?



- **Seed spread long distances by birds:** Directs you to the CABI (Centre for Agriculture and Biosciences International) website. CABI is an international, inter-governmental, not-for-profit organization that improves people's lives worldwide by providing information and applying scientific expertise to solve problems in agriculture and the environment. It has 48 member countries.
- **Gardening Responsibly Plant Sure:** A website aimed at educating people to plant non invasive species in their gardens.
- **NSW Weed Wise:** NSW DPI website listing over 300 weed profiles, describing: **Profile, Control** (including registered herbicide options) & **Biosecurity duty** (under the *Biosecurity Act 2015*).



Seed spread long
distances by birds



Gardening
RESPONSIBLY



NSW
WeedWise

Links – Where do they take us?

- **Known to be toxic or injurious to humans or animals:** Directs you to The NSW Poisons Information Centre.
- **Biological control establishing:** NSW website (currently registers as ‘error.’ However, on the NSW Weed Wise website, Biological control information is available for each weed listed.
- **PlantNET Floraonline:** This site presents a demonstration of one approach to an electronic **Flora of New South Wales**. It lists Plant Name Search, Index Search, Spatial Search, Identification Keys, Classification and a Glossary of Botanical Terms.



Known to be toxic
or injurious to
humans or animals




Biological control
establishing



PlantNET
Floraonline

Hyperlinks for every weed.

- The hyperlinks inside the front cover of the book take you to the generic webpage.
- There are also hyperlinks on every page for every weed. They take you to the webpage with specifics on that weed.
- Some weeds have more hyperlinks than others.



Bitou Bush¹ / Boneseed²
Chrysanthemoides monilifera ssp. *rotundata*¹
Chrysanthemoides monilifera ssp. *monilifera*²

Family: Asteraceae
Origin: South Africa
Habit: A sprawling woody evergreen shrubs to 2-3 m (will grow much higher if supported by taller vegetation).

Leaves: Simple, alternate, practically hairless except for a cottony down on young leaves. Bitou Bush¹: obovate to broad-obovate or broad-elliptic 3-8 cm long and 1.5-5 cm wide, usually smooth edged or irregularly toothed. Boneseed²: obovate to elliptic tapering at the base 2-9 cm long and 1.5-5 cm wide very coarsely toothed and have pointed tips.

Flowers: Bright lemon yellow daisy like flower 2.5-3 cm in diameter, clustered at the ends of branches for much of the year. Main flowering period Autumn. Bitou Bush¹: 5-13 petals. Boneseed²: 4-8 petals.

Fruit: Fleshy green berries 5-7 mm in diameter that turn black on ripening. The berries are produced in clusters formed at the ends of branches. Each berry contains one seed. Bitou Bush¹: obovoid to ellipsoid, black seed. Boneseed²: globose to subglobose, white seed.

Roots: Generally shallow in young plants, becoming extensive with age. On dunes, roots become deep due to constant sand accretion.

Dispersal: Seed spread by birds, animals (foxes, rats), water, humans, contaminated, soil machinery including excavators, slashers, vehicles and garden refuse dumping.

Control: Hand dig / pull juvenile plants, cut and paint, foliar spray adult plants.













Planted in eastern Australia between 1946-1968 to stabilise dunes after sand mining. It survives a wide range of habitats, from exposed coastal dunes to shaded forests.

Shrubs

How the hyperlinks (pictures) work

- When you click on a hyperlink (picture) you will be directed to the new webpage. A new 'tab' is not opened.
- To get back to the book, click on the 'back' button.

Look out for symbols throughout this booklet that identify priority values
Look for hyperlinks throughout the electronic resource to internal pages and various credible resources.

 High Risk to Socio-economic Values GBD	 High Risk to Biodiversity GBD	 High Risk to Biosecurity
 IUCN Global Invasive Species Database	 Weed of National Significance (WoNS)	 Not to be sold or traded in NSW
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 Known to be toxic or injurious to humans or animals	 Biological control establishing	 PlantNET Floraonline



← ↻ 🏠  <https://plantnet.rbgsyd.nsw.gov.au/floraonline.htm>



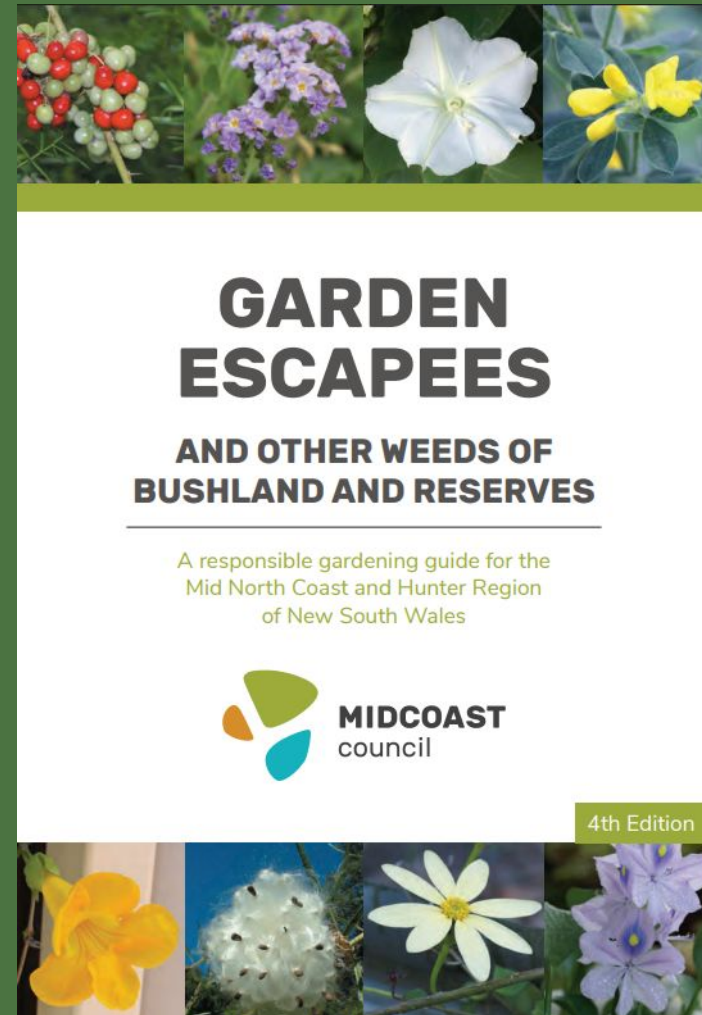
Let me demonstrate that...



Get your books out!

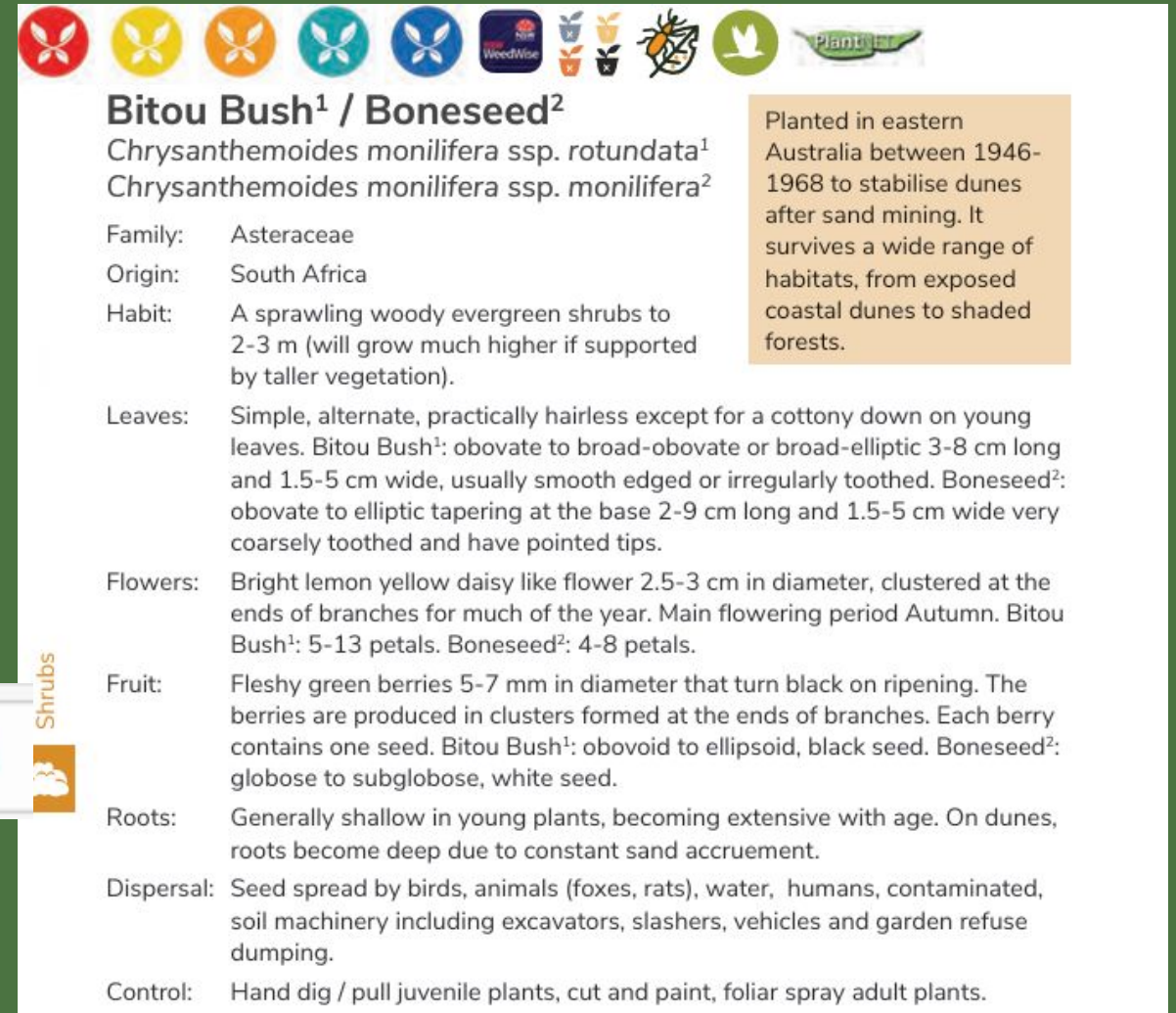


Open your electronic copy of your book.



You have a try.

- Scroll down to any page and select a weed. Click on any of the symbols.
- When it takes you to that page, click on the 'back' button.



The screenshot shows the PlantNet website interface. At the top, there is a navigation bar with several icons representing different plant categories. Below this, the main content area displays the profile for 'Bitou Bush¹ / Boneseed²'. The profile includes the scientific names *Chrysanthemoides monilifera* ssp. *rotundata*¹ and *Chrysanthemoides monilifera* ssp. *monilifera*², along with detailed information about its family (Asteraceae), origin (South Africa), habit (a sprawling woody evergreen shrub), leaves, flowers, fruit, roots, dispersal, and control methods. A text box on the right side of the profile provides historical context, stating that the plant was introduced to eastern Australia between 1946 and 1968 to stabilize dunes after sand mining. A red arrow points to the back button in the browser's address bar.

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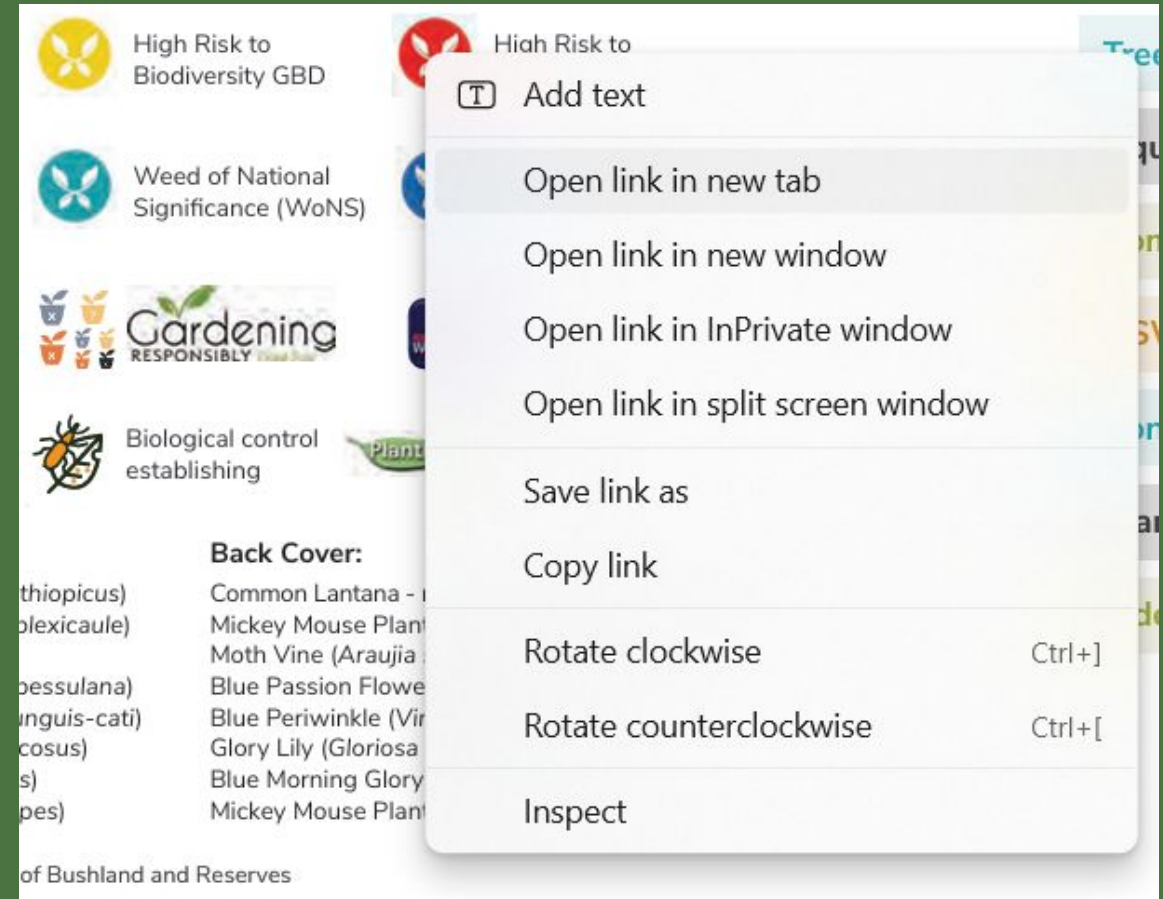
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Planted in eastern Australia between 1946-1968 to stabilise dunes after sand mining. It survives a wide range of habitats, from exposed coastal dunes to shaded forests.

← ↻ 🏠 <https://plantnet.rbgsyd.nsw.gov.au/floraonline.htm>

Open the webpage on a new tab

- If you want the webpage to open on a separate tab, and have the book on its own tab:
- Right click on a hyperlink (picture) – {I've done the red one}.
- A dropdown box will appear. Scroll down to 'Open link in new tab,' and click on it. It will open the webpage in a new tab.

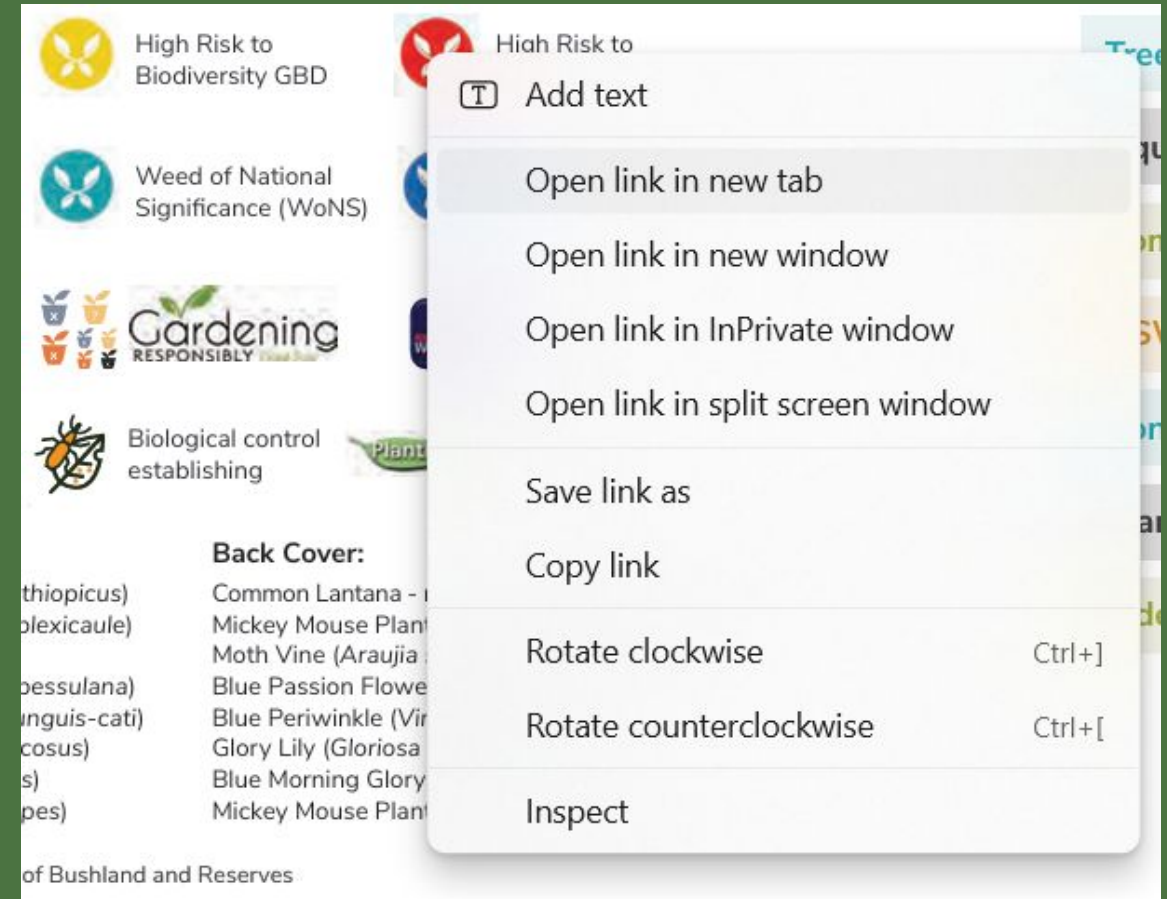


Let me demonstrate that...



You have a try.

- Choose any weed page.
- Right click on any hyperlink (picture).
- A dropdown box will appear. Scroll down to 'Open link in new tab,' and click on it. It will open the webpage in a new tab.



Contents Page

- The Contents Page is also a hyperlink. Click on a title i.e. ***Bulbous & Succulent Plants***, to jump straight to that page. No endless scrolling!

CONTENTS		
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Common Plant Parts	162	
NSW WeedWise	163	
Contact Information	164	
Plant Me Instead	165	
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Short Cut...

To get straight back to the Contents Page, click on the symbol on the side of the page.



BULBOUS AND SUCCULENT PLANTS

These plants are extremely hardy due to their above ground and below ground storage structures, which are modified leaves, stems and roots.

In this group of plants we have included all of the Asparagus species. These plants are prolific, hardy (drought-resistant), shade tolerant and highly invasive. They have extensive underground rhizomes that form thick mats capable of reducing water penetration into soil; vigorous vegetative structures that are capable of smothering native vegetation and produce copious amounts of berries (red or black) that are readily consumed and spread by animals and birds. They are also spread by green waste dumping as rhizomes are capable of surviving for long periods of time out of the soil.

The main weed species locally are featured on their own pages but below is a list of:-

Other Problematic Bulbous & Succulent Plants:

Common Name:	Botanical Name
Aloes:	<i>Aloe arborescens</i> , <i>A. ciliaris</i> , <i>A. maculata</i> .
Cabbage Tree:	<i>Cordyline australis</i>
Cactus / Prickly Pears:	<i>Opuntia aurantiaca</i> , <i>O. elata</i> , <i>O. elatior</i> , <i>O. microdasys</i> , <i>O. humifusa</i> , <i>O. monacantha</i> , <i>O. robusta</i> , <i>O. schickendantzii</i> , <i>O. stricta</i> , <i>O. tomentosa</i>
Cactus / Harrisia:	<i>Harrisia martinii</i> .
Eves needles / cane cactus	<i>Austrocylindropuntia subulata</i> , <i>A. cylindrica</i> .
Cactus/Prickly Pears:	<i>Cylindropuntia</i> spp.
Century Plant:	<i>Agave americana</i> ,
Freesia:	<i>Freesia hybrida</i>
Gladiolus:	<i>Gladiolus gueinzii</i> , <i>G. undulatus</i>
Macho Fern:	<i>Nephrolepis biserrata</i>
Mother-in-law's Tongue:	<i>Dracaena trifasciata</i>
Naked Lady:	<i>Amaryllis belladonna</i>
Onion grass:	<i>Romulea rosea</i>
Soursob/Shamrock/Wood Sorrel:	<i>Oxalis</i> spp.
Various Succulent's:	<i>Sedum</i> , <i>Kalanchoe</i> , <i>Crassula</i> , <i>Mesembryanthemum</i>

Bridal Creeper fact:

First recorded in Australia in 1857 in a nursery catalogue. By the 1870s bridal creeper was a common garden plant; its flowers were used in floral arrangements, particularly in wedding bouquets. Within 50 years of introduction, bridal creeper had become naturalised in many areas across most of southern Australia and has earned its status as a Weed of National Significance.

Agapanthus

Agapanthus spp.

Family: Alliaceae

Origin: Africa

Habit: An erect fleshy, clumping, perennial lily with long strappy leaves.

Leaves: Long (up to 700 mm), strap-like, glossy bright green, fleshy.

Flowers: Small (30 mm) trumpet shaped blue or white flowers that form large spherical clusters (umbels) at the end of long (1200 mm) smooth tubular stalks. Very showy floral display in Summer.

Fruit: Three-sided leathery green capsules form in clusters at the end of stalks, drying brown and papery when mature. Contain numerous winged, small black seeds.

Roots: Shallow, fleshy, densely matted and quite robust.

Dispersal: Seed and tubers spread by birds, animals, water, humans, contaminated soil and garden refuse dumping

Control: Hand dig / pull, bagging all plant parts and removing from site. Foliar spray, cut and paint.

This is a popular garden plant that needs active management in all gardens. This may be as simple as **actively removing spent flower stalks prior to seed set**, or as comprehensive as complete removal from gardens.

One of the most widely planted ornamental landscape plants, *Agapanthus* have invaded natural areas including the Blue Mountains world heritage area.



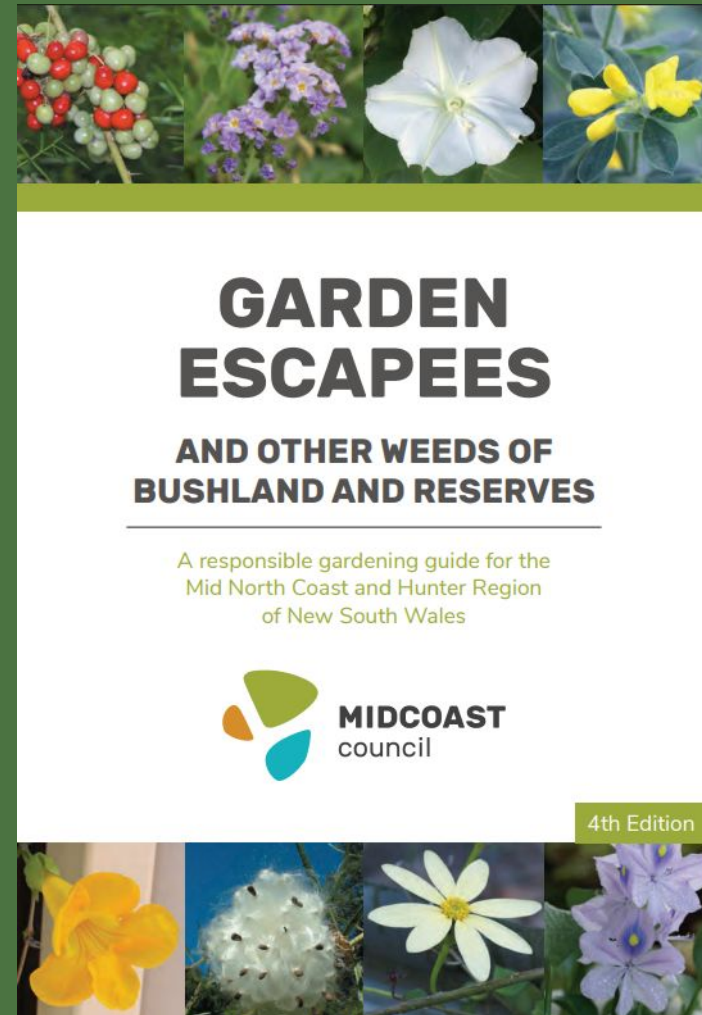
Let me demonstrate that...



Get your books out!



Open your electronic copy of your book.



You have a try.

- Scroll down to the contents page.
- Click on a title.
- When it takes you to that page, click on the symbol on the side of the page to take you back to the contents page.

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Network

Index Page

- The Index page works the same way!
- Click on the name of the plant. It will take you directly to that page.

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Where to from here?



- With your newfound knowledge, you can demonstrate to your Landcare group how the electronic version works to enable greater weed ID and treatment techniques for your group.
- You can keep updating yourselves with this resource as it continues to update.
- You can use this book with all its links and information to help create a weed plan for your site.
- Contact Terry to make suggestions on how to make it a better resource for your group - The people at the coal face!

Contact Terry!



Terry is looking for feedback on this wonderful resource, to tailor it to YOUR needs!

Terry Inkson

E: terry.inkson@cessnock.nsw.gov.au

