

NatureMaps 'quick start' guide Information compiled by Dr Mary Retallack, May 2021

NatureMaps is an online program that can be used to source information for individual properties located in South Australia. This is a 'quick guide' to help get you started on your property planning project and it provides details of the major pre-European plant communities found in the Riverland Wine Region.

Step #	Instruction									
Step 1	To get started open the following link https://data.environment.sa.gov.au/NatureMaps/Pages/default.aspx									
Step 2	Select the 'start' button START using and wait for the program to load									
Step 3	Type your details in the 'find your address or location' bar									
Step 4	Select the best fit from the ALVS tab (107) ALVS LOXTON, 5333 and the map will zoom to your address									
Step 5	Use the zoom 'in or out' buttons to navigate around the map (toggle out so you can see the region)									
Step 6	Select the 'layers' button at the bottom of the screen									
Step 7	Select the 'vegetation' layer + 🔻 Vegetation and then select the + button to open the drop down menu.									
Step 8	Select 'Pre-European Vegetation' from the drop-down menu									
Step 9	Slide the bar to change the transparency of the layer selected Pre European Vegetation									
Step 10	Place your cursor over a coloured area on the map to get more information about the selected layer. Then select 'view additional details' in the white summary box to access further details.									
Step 11	Once you have identified the name of your local plant community you can search and download a list of plants here https://www.landscape.sa.gov.au/hf/plants-and-animals/native-plants-animals-and-biodiversity/urban-biodiversity/b4w-native-species									

For further info see https://data.environment.sa.gov.au/NatureMaps/Documents/NatureMaps%20Help%20Guide.pdf
Please refer to the plant community lists below (which relate the location of the EcoVineyards demonstration sites) or enter your details into NatureMaps and follow the process above to access a plant list for your local area.

You may also be interested in using **nrmFarm**, a web based farm management tool which allows you to create and save a map of your farm including property boundaries, paddocks and infrastructure via secure login. It also allows you to record information like chemical applications, sowing dates, yield data, livestock movements, soil test results, and weed sightings. The nrmFarm is available for the following regions. The nrmFarm program can be accessed here https://www.naturalresources.sa.gov.au/samurraydarlingbasin/land-and-farming/tools-for-land-managers/nrm-farm









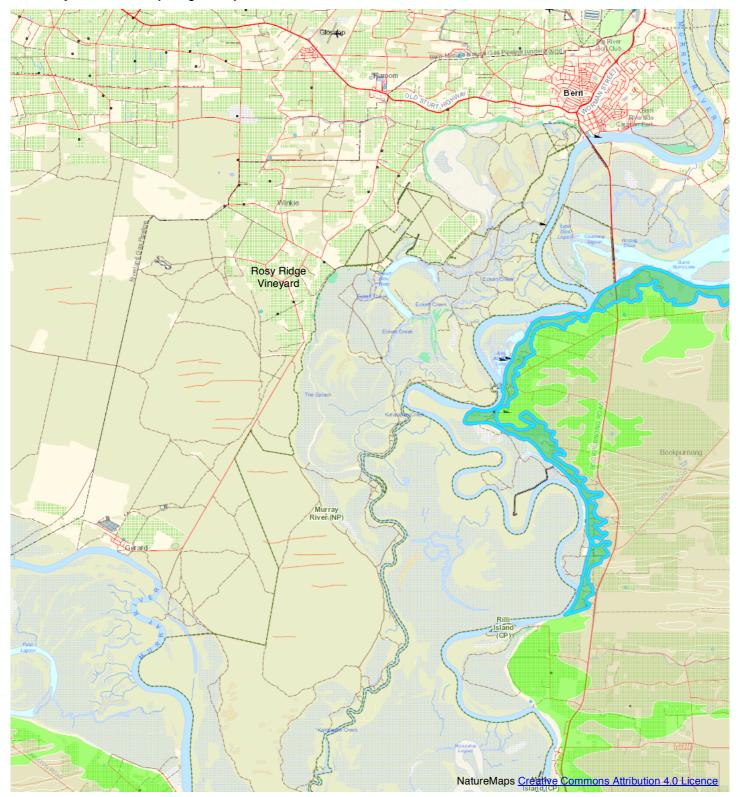




Southern cypress pine, *Callitris gracilis* low open forest (H7) (MN0010PE) plant species list

Description: Callitris gracilis low open forest typically over an open grassy and herbaceous understorey on shallow sandy

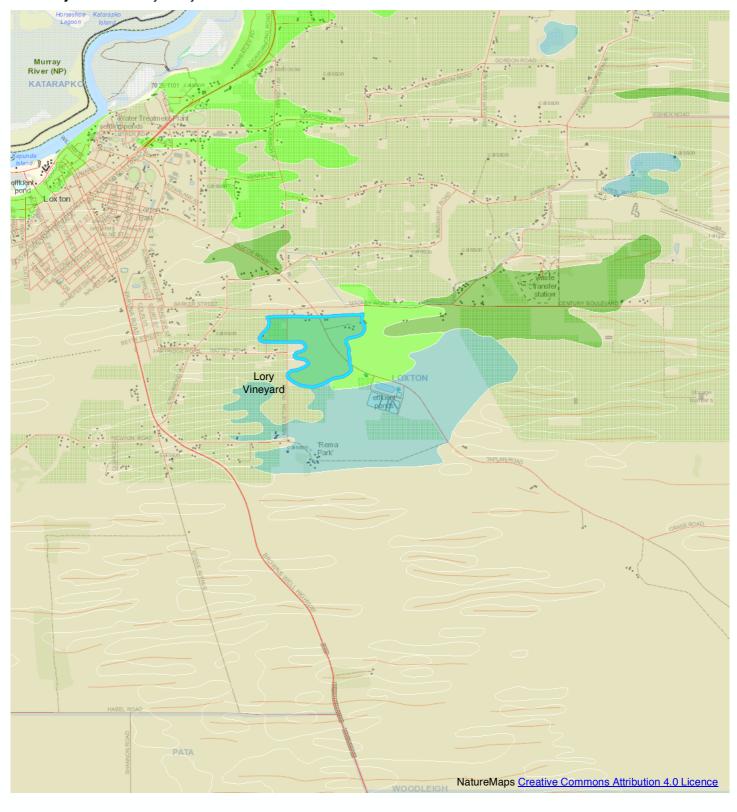
EcoVineyards site: Rosy Ridge Vineyard







EcoVineyards site: Lory Vineyard







Southern cypress pine, Callitris gracilis low open forest species list

This list may contain historical scientific or common names and includes plant species that grew naturally in this vegetation association that are commercially available. This information has been summarised from https://www.landscape.sa.gov.au/hf/plants-and-animals/native-plants-animals-and-biodiversity/urban-biodiversity/b4w-native-species https://www.stateflora.sa.gov.au/ and https://plantselector.botanicgardens.sa.gov.au/. Information is also presented about each plant's potential to provide nectar and/or pollen to nourish predatory arthropods. This information should be used as a guide only.

Habit	Genus	Species	Common name	Floral resources		Height	Width	Tolerance	Flower		Flowering
				Pollen	Nectar	(m)	(m)	to frost	colour		time
	Acacia	pycnantha	golden wattle	yes	¹yes	4 to 6	2 to 6	moderately sensitive	yello	ow .	winter to spring
Tree	Allocasuarina	verticillata	drooping sheoak	yes	no	5 to 8	4 to 6	resistant	red		autumn to winter
	Callitris	gracilis	southern cypress pine	yes	no	7 to 14	3 to 6	resistant	N//	A	N/A
	Acacia	ligulata	umbrella dust wattle	yes	¹yes	2 to 4	4 to 6	resistant	yello	ow .	spring
	Acacia	myrtifolia	myrtle wattle	yes	¹yes	1 to 2	1 to 2	moderately sensitive	yello	ow .	spring
	Acacia	paradoxa	prickly wattle	yes	¹yes	2 to 4	3 to 4	moderately sensitive	yello	ow .	spring
	Acacia	rupicola	rock wattle	yes	¹yes	0.5 to 2	1 to 2	resistant	yello)W	winter to spring
	Acacia	spinescens	spiny wattle	yes	¹yes	1 to 2.5	1 to 2.5	resistant	yello	ow	winter to spring
	Allocasuarina	muelleriana ssp. muelleriana	common oak-bush / slaty sheoak	yes	no	1 to 3	2 to 3	moderately sensitive	insignificant		spring to summer
Shrub	*Bursaria	spinosa	Christmas bush	yes	yes	2 to 4	1 to 3	resistant	white		late spring to late summer
	Calytrix	tetragona	fringe myrtle	yes	yes	1 to 2	1 to 2	resistant	pink		spring
	Daviesia	brevifolia	leafless bitter-pea	yes	yes	0.6 to 1.5	0.5 to 1	resistant	oran	ge	spring
	Dodonaea	<i>viscosa</i> ssp. spatulata	sticky hop bush	yes	no	2 to 4	2 to 4	resistant	N/A		spring to autumn
	Enchylaena	tomentosa var. tomentosa	ruby saltbush	yes		0.3 to 1	0.5 to 1.5	resistant	insignificant		spring to summer
	Grevillea	lavandulacea ssp. lavandulacea	heath grevillea	yes	yes	1 to 1.5	2 to 3	resistant	red		winter to spring
	Thomasia	petalocalyx	paper flower	² buzz pollinated (pollen only accessible to native bees)	no	0.6	0.6 to 1	moderately sensitive	purple	pink	spring to summer
	Lomandra	micrantha	small-flower mat-rush	yes	yes	0.2 to 0.8	0.2 to 0.9	resistant	whi	te	autumn to spring
Strap leaved	Lomandra	<i>multiflora</i> ssp. dura	hard mat- rush	yes	yes	0.2 to 0.8	0.75	resistant	cream		winter to summer
	Xanthorrhoea	semiplana ssp. semiplana	grass tree	yes	yes	1 to 3	1 to 2	moderately sensitive	crea	ım	winter to spring
	Aristida	behriana	brush wire- grass	yes	no	0.15 to 0.3	0.2 to 0.3	resistant	crea	ım	spring to summer
Ground cover	Austrostipa	elegantissima	feather spear-grass	yes	no	1	1	resistant	green brown		winter to spring
	Goodenia	blackiana	native primrose	yes	yes	0.1 to 0.2	0.2 to 0.5	moderately sensitive	yellow		winter to spring
	Kennedia	prostrata	scarlet runner or running postman	yes	yes	0.1	1.5 to 4	moderately sensitive	red		winter to spring
	Kunzea	pomifera	muntries	yes	yes	0.2	2 to 4	moderately sensitive	crea	ım	winter to spring
	Scaevola	albida	pale fan flower	yes	yes	0.3 to 0.6	0.6 to 1	resistant	whi	te	all year



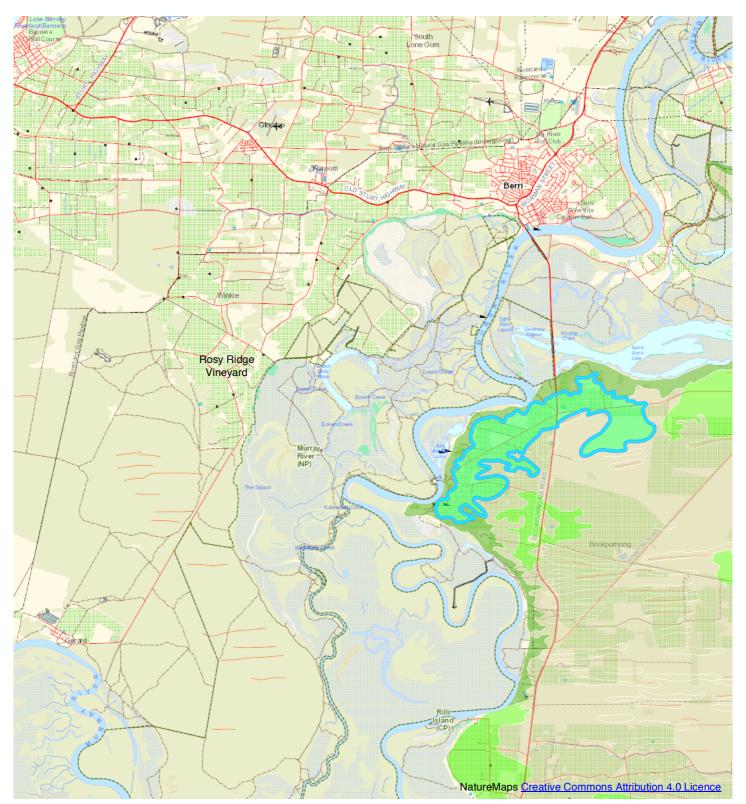




Sugarwood, *Myoporum platycarpum* ssp. platycarpum low woodland (MM3801PE) plant species list

Description: Myoporum platycarpum ssp. platycarpum low woodland over an open shrub understorey

EcoVineyards site: Rosy Ridge Vineyard

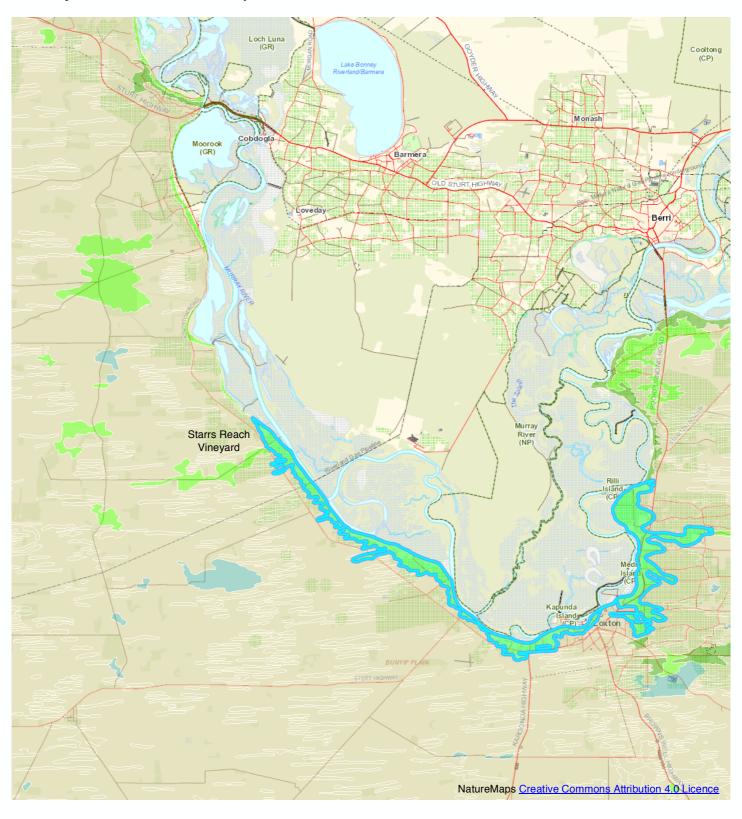








EcoVineyards site: Starrs Reach Vineyard









Sugarwood, Myoporum platycarpum ssp. platycarpum low woodland species list

This list may contain historical scientific or common names and includes plant species that grew naturally in this vegetation association that are commercially available. This information has been summarised from https://www.stateflora.sa.gov.au/hf/plants-and-animals/native-plants-animals-and-biodiversity/urban-biodiversity/b4w-native-species https://www.stateflora.sa.gov.au/ and https://www.stateflora.sa.gov.au/ and https://plantselector.botanicgardens.sa.gov.au. This information should be used as a guide only.

Habit	Genus	Species	Common	Floral resources		Height	Width	Tolerance	Flower		Flowering
паріі	Genus	Species	name	Pollen	Nectar	(m)	(m)	to frost	colour		time
	Acacia	aneura	mulga	yes	¹yes	4 to 10	3 to 6	resistant	yellow		winter to spring
	Callitris	glaucophylla	northern cypress pine	yes	no	8 to 14	4 to 7	moderately sensitive	ir	nsignificant	
	Callitris	gracilis	southern cypress pine	yes	no	7 to 14	3 to 6	resistant	ir	nsignificant	
	Casuarina	pauper	black oak	yes	no	6 to 15	4 to 8	resistant	red		summer
	Eucalyptus	dumosa	white mallee	yes	yes	4 to 8	4 to 5	resistant		yellow	winter to summer
Tree	Eucalyptus	gracilis	yorrell	yes	yes	3 to 9	3 to 8	moderately sensitive		white	autumn to spring
	Eucalyptus	leptophylla	narrow- leaved red mallee	yes	yes	2 to 6	3 to 8	resistant		cream	autumn to spring
	Eucalyptus	<i>oleosa</i> ssp. oleosa	red mallee	yes	yes	3 to 12	3 to 12	moderately sensitive		white	winter to spring
	Eucalyptus	socialis ssp. socialis	red mallee	yes	yes	4 to 8	4 to 8	resistant		cream	spring to summer
	Melaleuca	lanceolata	dryland tea- tree	yes	yes	3 to 8	3 to 5	resistant	cream		spring to summer
	Pittosporum	angustifolium	native apricot	yes	yes	4 to 8	3 to 4	moderately sensitive	cream		spring
	Acacia	ligulata	umbrella dust wattle	yes	¹yes	2 to 4	4 to 6	resistant	yellow		spring
	Acacia	oswaldii	umbrella wattle	yes	¹yes	3 to 5	3 to 5	resistant	yellow		summer
	Acacia	nyssophylla		yes	¹yes	2 to 3	3 to 4	resistant	yellow		winter to spring
	Acacia	rigens	neilie	yes	¹yes	2 to 4	2 to 4	resistant	yellow		winter to spring
	Acacia	<i>victoriae</i> ssp. victoriae	elegant wattle	yes	¹yes	2 to 5	2 to 5	resistant	yellow		spring to summer
	Dodonaea	viscosa ssp. angustissima	narrow- leaved hop bush	yes	no	2 to 4	2 to 4	resistant	insignificant		spring to autumn
	Enchylaena	tomentosa var. tomentosa	ruby saltbush	yes		0.3 to 1	0.5 to 1.5	resistant	ir	nsignificant	spring to summer
	Eremophila	alternifolia	native honeysuckle	yes	yes	2 to 3	2 to 3	moderately sensitive	pink	red orange	winter to spring
Shrub	Eremophila	longifolia	berrigen	yes	yes	2 to 6	1.5 to 4	moderately sensitive	pink	brown	winter to summer
	Eremophila	oppositifolia	twin-leaf emu bush	yes	yes	1.5 to 4	1 to 3	resistant	pink	cream	winter to summer
	Eremophila	coparia	broom emu bush	yes	yes	1 to 5	1 to 1.5	resistant		purple	winter to spring
	Hakea	leucoptera ssp. leucoptera	needle bush	yes	yes	2 to 5	2 to 4	moderately sensitive	white		spring
	Maireana	brevifolia	short-leaf bluebush	yes	yes	0.5 to 1	0.5 to 1.5	resistant	insignificant		
	Myoporum	platycarpum	false sandalwood	yes	yes	3 to 6	2 to 4	moderately sensitive	white		spring
	Senna	artemisioides ssp. artemisioides	silver cassia	² buzz pollinated (pollen only accessible to native bees)	no	1 to 2.5	1 to 2.5	moderately sensitive	yellow		all year







Sugarwood, Myoporum platycarpum ssp. platycarpum low woodland species list - continued

Habit	Genus	Species	Common	Floral resources		Height	Width	Tolerance	Flower		Flowering
		Species	name	Pollen	Nectar	(m)	(m)	to frost	colour		time
	Atriplex	ssp.	saltbush	yes		< 0.6	1 to 2	resistant	insign	ificant	all year
Ground	Austrostipa	ssp.	spear-grass	yes	no	1	1	resistant	green	brown	winter to spring
Cover	*Rytidosperma	ssp.	wallaby grass	yes	no	0.2 to 0.8	0.1 to 0.3	resistant	cream		spring

¹ Acacia flowers do not produce nectar. However, the leaf and phyllode glands do secrete a nectar or sugary substance which bees, butterflies and other insects have been observed feeding on.

Native insectary plants (general)

Growers are encouraged to explore the use of *Bursaria spinosa*, *Leptospermum* ssp. and *Rytidosperma* ssp. as insectary plants in and around their vineyards (Retallack et al., 2019). It is anticipated a broader suite of native insectary plants could extend the richness and abundance of predatory arthropods in vineyards. It is reported that the longevity of parasitoid wasps which predominantly feed on nectar are significantly enhanced by Australian native

plants including Christmas bush, *Bursaria spinosa*, crimson bottlebrush, *Callistemon* sp., Hakea, *Hakea* sp., prickly teatree, *Leptospermum continentale*, woolly tea-tree, *Leptospermum lanigerum*, austral trefoil, *Lotus australis*, creeping mint, *Mentha satureioides*, dryland tea tree, *Melaleuca lanceolata*, creeping boobialla, *Myoporum parvifolium*, sticky boobialla, *Myoporum petiolatum*, and wallaby grasses, *Rytidosperma* ssp.

In addition, a recent desktop review of plants native to South Australia identified a broader suite of locally-adapted native plants which are regarded as having the capacity to provide insectary benefits and may hold widespread appeal. They include wild rosemary, *Dampiera rosmarinifolia*, clasping goodenia, *Goodenia amplexans*, hop goodenia, *Goodenia ovata*, cut-leaf goodenia, *Goodenia pinnatifida*, boobialla, *Myoporum insulare*, long-leaved bush-pea, *Pultenaea daphnoides*, twiggy bush-pea, *Pultenaea largiflorens*, blue-rod, *Stemodia florulenta*, fairy fan-flower, *Scaevola aemula*, as well as species of *Acacia* ssp., *Eucalyptus* ssp., and *Lomandra* ssp. that may be suited to a particular site. Other plants previously identified for their insectary benefits in vineyards include straw wallaby grass, *Rytidosperma richardsonii*, windmill grass, *Chloris truncata*, and creeping saltbush, *Atriplex semibaccata*.

More information?

If you would like to find out more information about individual plants. Visit the Botanic Gardens of SA 'Plant Selector' http://plantselector.botanicgardens.sa.gov.au. Enter your postcode and press search. View the results and export data to retain a copy. The Excel spreadsheet contains detailed notes about each plant and its suggested uses.

The Adelaide and Mount Lofty Ranges Natural Resources Management Board local plant catalogue provides a useful guide when selecting plants http://plantselector.naturalresources.sa.gov.au



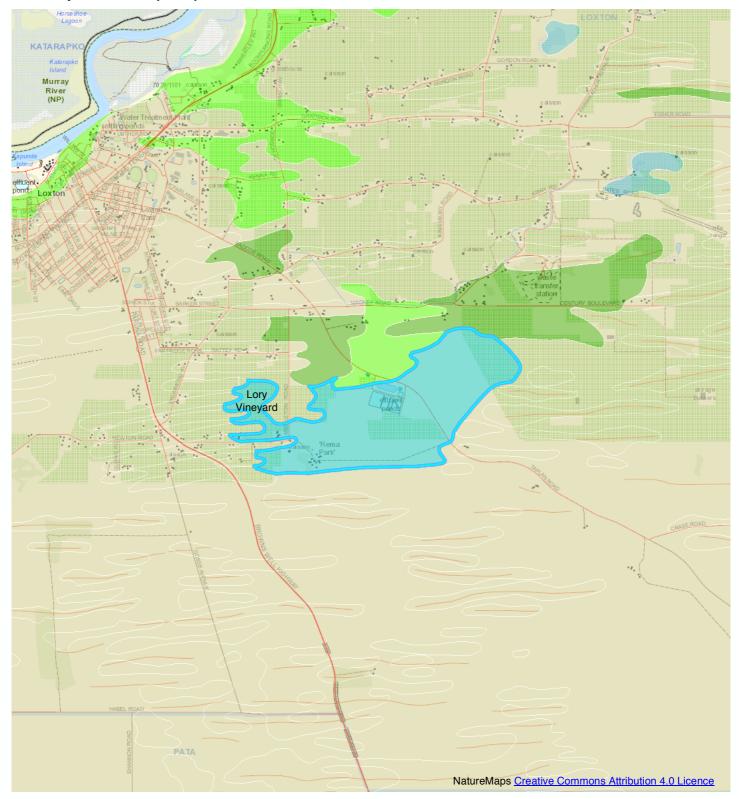




² **Buzz pollination:** Some native bees use a special pollination technique called 'buzz pollination' (sonication) i.e. the bluebanded bee, bangs its head on the flower's anthers 350 times a second to release the pollen. Plants from the Solanaceae (nightshade) family (tomatoes, capsicums and eggplants) and many Australian native plants including *Hibbertia* ssp. and *Dianella* ssp. are buzz pollinated. These plants have the capacity to boost biodiversity and support populations of native bees but their pollen resources may not be readily available to predatory arthropods.

Bullock bush, *Alectryon oleifolius* ssp. canescens tall shrubland MM4001PE plant species list

EcoVineyards site: Lory Vineyard





Bullock bush, Alectryon oleifolius ssp. canescens tall shrubland species list

This list may contain historical scientific or common names and includes plant species that grew naturally in this vegetation association that are commercially available. This information has been summarised from https://www.stateflora.sa.gov.au/hf/plants-and-animals/native-plants-animals-and-biodiversity/urban-biodiversity/b4w-native-species https://plantselector.botanicgardens.sa.gov.au. Information is also presented about each plant's potential to provide nectar and/or pollen to nourish predatory arthropods. This information should be used as a guide only.

	Genus	Species	Common name	Floral resources		Height	Width (m)	Tolerance	Flower	Flowering	
Habit				Pollen	Nectar	(m)	Wiath (m)	to frost	colour	time	
	Alectryon	oleifolius ssp. canescens	bullock bush	yes		9			cre	am	summer
	Acacia	aneura	mulga	yes ¹yes		4 to 10	3 to 6	resistant	yellow		winter to spring
	Callitris	glaucophylla	northern cypress pine	yes	no	8 to 14	4 to 7	moderately sensitive	insignificant		
	Callitris	gracilis	southern cypress pine	yes	no	7 to 14	3 to 6	resistant	insign	ificant	
_	Casuarina	pauper	black oak	yes	no	6 to 15	4 to 8	resistant	re	d	summer
Tree	Eucalyptus	gracilis	yorrell	yes	yes	3 to 9	3 to 8	moderately sensitive	wh	ite	autumn to spring
	Eucalyptus	<i>oleosa</i> ssp. oleosa	red mallee	yes	yes	3 to 12	3 to 12	moderately sensitive	wh	ite	winter to spring
	Eucalyptus	socialis ssp. socialis	red mallee	yes	yes	4 to 8	4 to 8	resistant	cre	cream	
	Melaleuca	lanceolata	dryland tea- tree	yes	yes	3 to 8	3 to 5	resistant	cream		spring to summer
	Pittosporum	angustifolium	native apricot	yes	yes	4 to 8	3 to 4	moderately sensitive	cre	am	spring
	Acacia	nyssophylla		yes	¹yes	2 to 3	3 to 4	resistant	yellow		winter to spring
	Acacia	oswaldii	umbrella wattle	yes	¹yes	3 to 5	3 to 5	resistant	yellow		summer
	Acacia	<i>victoriae</i> ssp. victoriae	elegant wattle	yes	¹yes	2 to 5	2 to 5	resistant	yellow		spring to summer
	Enchylaena	tomentosa var. tomentosa	ruby saltbush	yes		0.3 to 1	0.5 to 1.5	resistant	insignificant		spring to summer
Shrub	Maireana	brevifolia	short-leaf bluebush	yes	yes	0.5 to 1	0.5 to 1.5	resistant	insignificant		
Siliub	Myoporum	platycarpum	false sandalwood	yes	yes	3 to 6	2 to 4	moderately sensitive	white		spring
	Olearia	pimeleoides	showy daisy- bush	yes		0.5 to 1	0.5 to 1	moderately sensitive	wh	ite	winter to spring
	Rhagodia	parabolica	fragrant saltbush	yes		1 to 2	1 to 2	resistant	insignificant		winter to spring
	Senna	artemisioides ssp. artemisioides	silver cassia	² buzz pollinated (pollen only accessible to native bees)	no	1 to 2.5	1 to 2.5	moderately sensitive	yel	ow	all year
	Atriplex	ssp.	saltbush	yes		< 0.6	1 to 2	resistant	insign	ificant	All year
Ground cover	Austrostipa	ssp.	spear-grass	yes	no	1	1	resistant	green brown		winter to spring
	*Rytidosperma	ssp.	wallaby grass	yes	no	0.2 to 0.8	0.1 to 0.3	resistant	cre	am	spring

¹ Acacia flowers do not produce nectar. However, the leaf and phyllode glands do secrete a nectar or sugary substance which bees, butterflies and other insects have been observed feeding on.







² **Buzz pollination:** Some native bees use a special pollination technique called 'buzz pollination' (sonication) i.e. the bluebanded bee, bangs its head on the flower's anthers 350 times a second to release the pollen. Plants from the Solanaceae (nightshade) family (tomatoes, capsicums and eggplants) and many Australian native plants including *Hibbertia* ssp. and *Dianella* ssp. are buzz pollinated. These plants have the capacity to boost biodiversity and support populations of native bees but their pollen resources may not be readily available to predatory arthropods.

Useful links

Native plant nurseries										
Company	Contact	Address	Contact details	Website						
Barossa Bushgardens	Pam Payne	635 Research Rd, Nuriootpa, SA	M: 0448 676 348 (Tues or Thurs) T: (08) 8563 8330 (Tues or Thurs) E: bushgardens@barossa.sa.gov.au	https://barossabushgardens. com.au/community-nursery						
Goolwa to Wellington Local Action Planning Association	Ben Simon	Kessell Rd (next to council depot), Goolwa, SA	M: 0418 828 949 E: ben.simon@gwlap.org.au	http://www.gwlap.org.au/what- we-do/alexandrina- community- nursery/						
Kersbrook Landcare Nursery	Heidi Pitman	176 South Para Rd Williamstown, SA	M: 0431 989 397 E: klg@landcaregroup.org.au	www.kersbrook.landcare group.org.au						
Riverland Native Plants	Tim and Nicole Field	143 Anderson Road, Loxton North, SA	M: 0499 362 581 E: riverlandnativeplants@gmail.com	https://riverlandnativeplants .com.au						
State Flora Belair		In Belair National Park (free entry - instructions at main gate), SA	T: (08) 8278 7777 E: denrstatelfora@sa.gov.au	www.stateflora.sa.gov.au						
State Flora Murray Bridge		Bremer Rd, Murray Bridge, SA	T: (08) 8539 2105 E: dewnrstateflora@sa.gov.au	www.stateflora.sa.gov.au						
Trees for Life Westwood Nursery	Brett Oakes	5-7 May Terrace, Brooklyn Park (Cnr Sir Donald Bradman Dr & May Tce), SA	T: (08) 8406 0500 E: info@treesforlife.org.au	https://treesforlife.org.au						
Suppliers of native	seeds and/or	native grass sowing s	ervices							
Company	Contact	Address	Contact details	Website						
Blackwood Seeds	Phil Druce	Inman Valley, SA	M: 0427 588 288 E: <u>bwseeds@activ8.net.au</u>	N/A						
Native Seeds Pty Ltd	Darren Vincent	Great Alpine Rd Eurobin, Vic	T: 1300 473 337 E: enquiries@nativeseeds.com.au	www.nativeseeds.com.au						
Seeding Natives Incorporated	Andrew Fairney	Mount Pleasant, SA	M: 0477 307 577 E: andrew@seedingnatives.org.au	www.seedingnatives.org.au						

You can find a local native plant grower from this <u>native plant nurseries list.</u>

Continue your search for useful information here

- Australian National Botanic Gardens https://www.anbg.gov.au/search/index.html
- Backyards4Wildlife https://www.landscape.sa.gov.au/hf/plants-and-animals/native-plants-animals-and-biodiversity/urban-biodiversity/b4w-native-species
- Botanic Gardens of SA plant selector http://plantselector.botanicgardens.sa.gov.au
- Butterfly Conservation South Australia Inc. https://butterflyconservationsa.net.au/butterflies/attract/find-plants/
- Kersbrook Landcare Group 'Focus on Flora' book http://kersbrook.landcaregroup.org.au/articles/about_book.html
- Natural Resources Adelaide and Mount Lofty Ranges Native grasses: A regional guide https://www.naturalresources.sa.gov.au/files/sharedassets/adelaide and mt_lofty_ranges/land/native-grasses-2017.pdf
- Seeds of South Australia https://spapps.environment.sa.gov.au/SeedsOfSA/scientificsearch.html
- State Flora catalogue https://www.stateflora.sa.gov.au/buy-plants/how-to-order/catalogue









Thank you to our project partners!



















































Acknowledgement of country

The EcoVineyards project acknowledges Aboriginal people as the First Peoples and Nations of the lands and waters we live and work upon and we pay our respects to their Elders past, present and emerging. We acknowledge and respect the deep spiritual connection and the relationship that Aboriginal and Torres Strait Islander people have to Country.

Meru country, where the Eriwarung, Moorundi, Barmerara, Maru and Narwij jerook groups all lived is known as the Riverland.

Disclaimer

Wine Grape Council of South Australia and Retallack Viticulture Pty Ltd do not warrant or make any representation regarding the use or results of use of the information contained herein as to its correctness, accuracy, currency, or otherwise. No person should act on the basis of the contents of this publication without first obtaining, specific, independent professional advice relevant to a particular site. Wine Grape Council of South Australia and Retallack Viticulture Pty Ltd will not be liable for any loss, damage, cost or expense incurred or arising by reason of any person using or relying on the information in this publication.

For more info about the EcoVineyards project see https://www.wgcsa.com.au/ecovineyards.html





