

Declared Plant Policy

under the Natural Resources Management Act 2004



bridal creeper (*Asparagus asparagoides*)

Bridal creeper is a winter-growing, summer-dormant climbing perennial. It is widespread in South Australia, invading a wide range of native vegetation communities. Two forms of bridal creeper (known as common and Western Cape) have been found in SA and require different management approaches.

Management Plan for Bridal Creeper

Outcomes

- Protect the integrity of native vegetation by preventing further spread and minimising the impacts of existing bridal creeper infestations.

Objectives

- Contain existing infestations to prevent spread into uninvaded areas.
- Control bridal creeper at sites of high conservation significance.
- Control priority infestations in accordance with NRM board regional management plans.

Implementation

- State and regional NRM authorities to support further redistribution of biological control agents.
- Prohibition on sale of bridal creeper is to be enforced as detected by NRM authorities.
- Identification and strategic control of outlier infestations.
- Management of core infestations of bridal creeper to protect high value natural assets/areas of conservation significance.
- Extension to raise awareness of the two forms of bridal creeper and the differences in management approaches.

Regional Implementation

Refer to regional management plans for further details. In particular, some regions have separate management plans for the Western Cape form of bridal creeper.

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NRM Region	Actions
Adelaide and Mount Lofty Ranges	manage weed (Western Cape form – eradicate)
Alinytjara Wilurara	limited action
Eyre Peninsula	manage weed
Kangaroo Island	protect sites
Northern and Yorke	manage weed
South Australian Arid Lands	limited action
South Australian Murray Darling Basin	contain spread
South East	manage weed (Western Cape form – control)

Declaration

To implement this policy, bridal creeper is declared under the *Natural Resources Management Act, 2004* throughout the whole of the State of South Australia. The movement or transport of the plant on a public road, by itself or as a contaminant, or the sale by itself or as a contaminant is prohibited. NRM authorities may require land owners to control bridal creeper plants growing on their land. NRM authorities are required to control plants on road reserves, and may recover costs from the adjoining land owners.

Bridal creeper is declared in category 2 under the Act, for the purpose of setting maximum penalties and for other purposes. Any permit to allow its movement or sale can only be issued by the Chief Officer pursuant to section 188.

The following sections of the Act apply to bridal creeper throughout each of the NRM regions noted below:

Sections of Act	Region							
	AMLR	AW	EP	KI	NY	SAAL	SAMDB	SE
175(1) Prohibiting entry to area								
175(2) Prohibiting movement on public roads	X	X	X	X	X	X	X	X
177(1) Prohibiting sale of the plant	X	X	X	X	X	X	X	X
177(2) Prohibiting sale of contaminated goods	X	X	X	X	X	X	X	X
180 Requiring notification of infestations								
182(1) Landowners to destroy the plant on their properties								
182(2) Landowners to control the plant on their properties	X	X	X	X	X	X	X	X
185 Recovery of control costs on adjoining road reserves	X	X	X	X	X	X	X	X

Review

This policy is to be reviewed by 2020 or in the event of any change in the status of bridal creeper as a Weed of National Significance.

Weed Risk

Invasiveness

Bridal creeper is highly invasive. Controlling its spread is difficult as seed is abundant and produced in berries, which are dispersed by many species of native and introduced birds.

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Seedlings establish readily even in undisturbed native vegetation. Bridal creeper also spreads vegetatively via rhizomes if its root system is disturbed.

Impacts

Bridal creeper is a strong competitor whose dense canopy overshadows native plants and blocks sunlight during the winter growing season, greatly reducing native plant diversity. Its large, tuberous root system competes with native plants for root space and nutrients and limits native species germination. The annual shedding of bridal creeper leaves also increases surface soil nutrient levels, increasing opportunity for secondary weed growth and further native species displacement.

Potential distribution

Common bridal creeper can potentially grow throughout the Eyre Peninsula, Kangaroo Island, Northern & Yorke, Adelaide & Mount Lofty Ranges, SA Murray-Darling Basin and South-East regions.

Western Cape bridal creeper has the potential to grow throughout a similar, but slightly narrower, range than the common form. This includes the Eyre Peninsula, Kangaroo Island, Northern & Yorke, Adelaide & Mount Lofty Ranges, SA Murray-Darling Basin and South-East regions.

Feasibility of Containment

Control costs

A leaf rust, *Puccinia myrsiphylli* was identified as a suitable biocontrol agent and released in Australia in June 2000. This has spread effectively and has a heavy impact on infestations of the common form of bridal creeper. Control by herbicides is labour-intensive and results in some off-target damage occurs but may be used to protect high value sites and to destroy infestations of the Western cape form, which is resistant to the leaf rust.

Persistence

Bridal creeper can maintain itself indefinitely in native vegetation, regenerating readily from rhizomes after fires and dry summers. Seeds are relatively short lived.

Current distribution

Common bridal creeper has spread throughout most of its potential range and is widespread across the Eyre Peninsula, Kangaroo Island, Northern & Yorke, Adelaide & Mount Lofty Ranges, SA Murray-Darling Basin and South-East regions. There are still some additional sites where it could grow or become denser in cover.

Western Cape bridal creeper is currently limited to the Adelaide Hills (around tea Tree Gully) and scattered along the south-east coast of the state from Millicent to Donovans (and into Victoria).

State Level Risk Assessment

Assessment using the Biosecurity SA Weed Risk Management System gave the following comparative weed risk and feasibility of containment scores by land use for common bridal creeper:

Land use	Weed Risk	Feasibility of control	Response at State Level
Perennial horticulture	low 28	medium 38	limited action
Forestry	negligible 7	high 30	limited action
Native vegetation	high 108	low 81	manage weed

Assessment of the Western Cape form gave the following results, reflecting its comparative rarity and resistance to biological control by rust.

Land use	Weed Risk	Feasibility of control	Response at State Level
Perennial horticulture	low 14	very high 2	monitor
Forestry	negligible 7	very high 2	monitor
Native vegetation	medium 54	very high 2	destroy infestations alert

Considerations

For common bridal creeper, risk assessment indicates manage weed as the management action to protect native vegetation; in practice this is implemented according to the level of infestation in each region, by minimising further spread and using biological control to progressively reduce infestation densities. In the Adelaide and Mount Lofty Ranges region, infestations are contained by management of established sites, and may be targeted for control or destruction at high priority sites. On Kangaroo Island, outlying infestations are targeted for control and integrated weed management principles promoted to reduce biodiversity impacts with the aim of protecting sites. In the South Australian Murray Darling Basin, spread will be contained by use of integrated weed management. Limited action is required in the Alinytjara Wilurara and South Australian Arid Lands regions where habitats are not vulnerable to invasion by bridal creeper. In the South-East activities include containment and reduction of core infestations, with some targeted control to protect high biodiversity sites. Eyre Peninsula and Northern and Yorke manage core infestations with biocontrol redistribution. Northern and Yorke also target outlier infestations for strategic control where infestations are less dense.

A strain of bridal creeper from the Western Cape, resistant to the leaf rust, is locally naturalised in the Adelaide Hills and the lower South-East region. Although they are still rare, these plants pose a higher threat as they may increase as the commoner form is controlled. They are visibly distinct from the common form and therefore can be mapped. A national management plan has identified distribution and prioritised sites for control. It is believed that this form has a narrower (mostly near-coastal) potential distribution, and at the State level the aim is to destroy infestations. The Adelaide and Mount Lofty Ranges region aims to eradicate all infestations,

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whilst the South-East region aims to contain the spread and destroy infestations in high priority areas.

Bridal creeper, as one of the Weeds of National Significance, is the subject of a national control strategy (ARMCANZ, 2001). In line with the national strategy on bridal creeper agreed by the Natural Resource Management Ministerial Council, sale of the plant is prohibited in South Australia as in other jurisdictions.

Synonymy

Asparagus asparagoides (L.)W.Wight, Century Dict. 11: 845 (1909)

Basionym: *Medeola asparagoides* L., Sp. Pl. 1: 339 (1753)

Nomenclatural synonym:

Myrsiphyllum asparagoides (L.)Willd., Mag. Neuesten Entdeck. Gesammten Naturk. Ges. Naturf. Freunde Berlin 2: 25 (1808)

Taxonomic synonyms:

Dracaena medeoloides L.f., Suppl. Pl. 203 (1782)

Asparagus medioloides (L.f.)Thunb., Prodr. Fl. Cap. 66 (1794)

Elachanthera sewelliae F.Muell., Vict. Nat. 3: 108 (1886)

Luzuriaga sewelliae (F.Muell.)K.Krause, Nat. Pflanzenfam. 15a: 379 (1930)

Myrsiphyllum falciforme Kunth, Enum. Pl. 5: 107 (1850)

Myrsiphyllum krausianum Kunth., Enum. Pl. 5: 107 (1850)

Asparagus kuisibensis Dinter, Repert. Spec. Nov. Regni Veg. 29: 270 (1931)

Asparagus multituberosus R.A.Dyer Bothalia 6: 442 (1954).

Other common names include florists' smilax, false smilax, gnarboola, krulkransie, narba and smilax asparagus.

References

Agriculture & Resource Management Council of Australia & New Zealand, Australia & New Zealand Environment & Conservation Council and Forestry Ministers (2001) Weeds of National Significance Bridal Creeper (*Asparagus asparagoides*) Strategic Plan. 33 pp. (National Weeds Strategy Executive Committee: Launceston).

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