
ANNOTATED BIBLIOGRAPHY OF THE WEED *ASPARGUS ASPARAGOIDES* (L.) W. WIGHT (BRIDAL CREEPER)

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Abstract

The world and especially Australian literature on the weed, *Asparagus asparagoides* (L.) W. Wight (Asparagaceae) (bridal creeper), is listed with annotation, index to authors and key words covering 224 references.

Introduction

Nature conservation areas and National Parks in southern Australia are being invaded by the weed *Asparagus asparagoides* (L.) W. Wight (Asparagaceae) (bridal creeper). The plant originates from southern Africa and was a popular ornamental and floricultural plant. It is now being targeted for biological control in Australia using agents from southern Africa and is being assessed in Australia for susceptibility to herbicide and other control methods. There has been a rapid rise in the number of papers on *A. asparagoides* since 1980 (Figure 1). The considerable interest in the weed across southern Australia and recent research activities, workshops, symposia (eg Pigott *et al.* 1996) and reports have led to this increase in publications. This reflects the plant's growing importance as an environmental weed. Many of these publications are possibly not widely known or disseminated and often are not included in mainstream abstracting systems. Thus the specific need for information on bridal creeper, and especially methods for its control and management, led to the preparation of this bibliography.

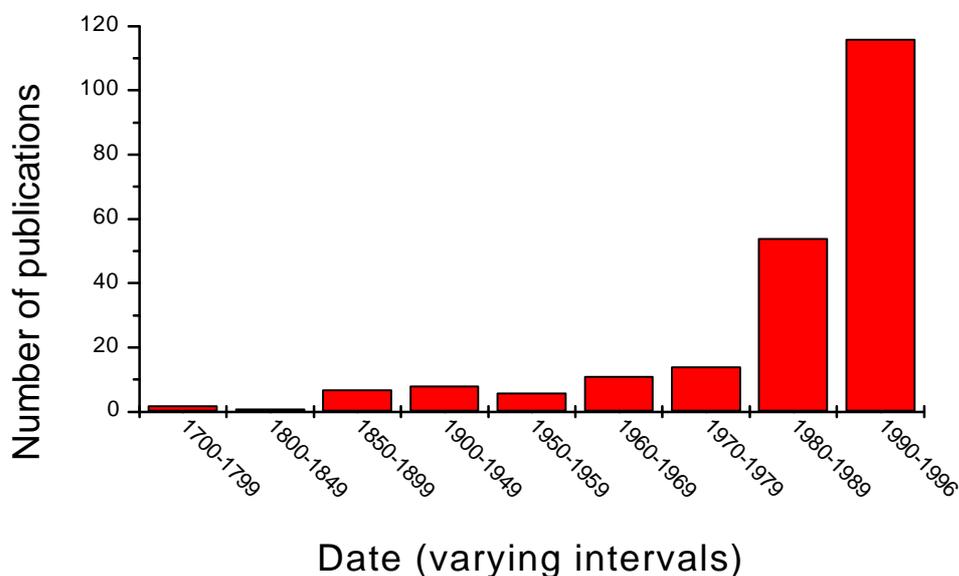


Figure 1. Frequency of publication of papers mentioning *Asparagus asparagoides*, 1700 - 1996.

Methods

The bibliography is arranged in alphabetical order of authorship. A key word index is provided to facilitate use of the bibliography via subject headings. An author index is also included. The bibliography is based on literature searches up to 1995 and partially into 1996. Selection of articles consulted for the bibliography was based on the mention of *Asparagus asparagoides* or synonyms or common names of the species in the article.

Sources consulted

The literature searches were undertaken using the species names *Asparagus asparagoides*, *Myrsiphyllum asparagoides*, and *Medeola asparagoides*. The common name “bridal creeper” was also used because some papers did not mention the species name. The following abstracting systems were searched; Agricola, Agris International, Australian Bibliography of Agriculture, Australian Bibliographic Network, Bibliography of Agriculture, Biobusiness, Biological Abstracts, Biosis Previews, CAB Abstracts, Chemical Abstracts, CSIRO Index, Conference Papers Index, Current Contents, Dissertation Abstracts Online, Environmental Abstracts, Geobase, Life Sciences Collection, Pascal, Rural Research in Progress, SciSearch, Union List of Higher Degree Theses in Australian University Libraries and Zoological Record Online. A bibliography of the genus *Asparagus*, mainly concerned with commercial asparagus, *A. officinalis* (Hung 1975), was consulted.

The bibliographies of the published papers proved to be a very fruitful source. A draft of the bibliography was distributed to researchers (see acknowledgments) familiar with *A. asparagoides*, in order to ascertain if any references had been overlooked.

Articles not included or under-represented in the bibliography

The bibliography is primarily focused on *A. asparagoides* as an environmental weed and attempts to include all references contributing new information. Some of the articles that mentioned *A. asparagoides* in passing were not included in the bibliography. More references could be found among Australian floras and many more would be found among the southern African floras. Newspaper articles, pamphlets produced by community groups and other “informal” literature on *A. asparagoides* are also under-represented in the bibliography.

Some of the highly specialised literature was not included. For example, there has been considerable debate over whether cladodes are stems or leaves. The cladodes of *A. asparagoides* are well developed, leaf-like and consequently have often featured as a study plant in this debate. The bibliography has not attempted to include all these references. A good introduction to this literature is found in Cooney-Sovetts (1986), *Botanical Journal of the Linnean Society* 94, 327-372.

Authors, article titles and source information

Author’s names, initials and article titles were reproduced exactly as they are in the original publications. Non-English titles have been translated and the translation is contained within <> brackets. Square brackets [] include the date of publication where this has not been recorded in the article or the page numbers where these are absent.

Abstracts

Most of the abstracts were written for this bibliography. The annotation [Author’s abstract] at the end of an abstract indicates the author’s original abstract reproduced with permission. The annotation [Permission of authors required before citing] concerns publications or unpublished material where it is indicated that the material may not be cited without the permission of the author. Square brackets in an abstract [] contain comments by us, often indicating other sources of the information or the current species name.

Species names used in each reference were retained in the abstract. However, species names used in the key words conform with the usage in Fellingham & Meyer (1995). Hence only one genus, *Asparagus*, is recognised and *Myrsiphyllum* and *Protasparagus* are considered to be synonyms. The species name “*asparagoides*” has been used, with few exceptions, for a considerable time. It is recognised that a detailed morphological study and genetic techniques might lead to the recognition of several species under the name “*asparagoides*” (Edwards and Kleinjan unpublished). Other Asparagaceae mentioned in the articles are included in the abstract and key words. Hence the abstracts report only on *A. asparagoides* whereas the references may cover many more topics.

The software package used to store the bibliography is Procite for Windows Version 3.1. The bibliography is available as Procite files on a 3¼ inch disk (PC compatible) on request to the senior author.

Acknowledgments

This project was made possible by the Co-operative Research Centre on Weed Management Systems, the CSIRO Division of Entomology and the CSIRO Western Australian Laboratories Library. We thank the many librarians who helped find references and we are especially grateful to Linley Thornber for undertaking most of this challenging task.

We are grateful to the many authors and in particular R.G. Richardson of Plant Protection Quarterly for permission to reproduce abstracts and for permission to cite references. We also thank the following for their comments on drafts of the bibliography and for informing us of missing references; Mr D. Cooke, South Australian Animal and Plant Control Commission, Dr P.B. Edwards, CSIRO Division of Entomology, Canberra, Dr J.R. Hosking, Agriculture New South Wales, Mr J.P. Pigott, Western Australian Department of Conservation and Land Management, Mr G.H. Pritchard, Keith Turnbull Research Institute, Ms K. Raymond, Department of Ecology and Evolutionary Biology, Monash University, and Mrs B. Waugh, CSIRO Western Australian Laboratories Library. Drafts were also commented on by Ms K. Robinson, Mr R.J. Adair and Dr R.H. Groves. It is inevitable in a compilation such as this that errors and omissions will occur and for this the authors accept full responsibility.

Annotated bibliography

1 ADAIR, R.J. (1995). **The threat of environmental weeds to biodiversity in Australia: a search for solutions.** In *Conserving biodiversity: threats and solutions*, editors R.A. Bradstock, T.D. Auld, D.A. Keith, R.T. Kingsford, D. Lunney and D.P. Sivertsen, pp. 184-201. (Surrey Beatty & Sons Pty Ltd, Chipping Norton, New South Wales).

This review covers a wide range of solutions to many environmental weed problems. The weed, *Asparagus asparagoides*, smothers understorey vegetation in dry coastal communities of southern Australia and may lead to a decline in biodiversity. It is a candidate for biological control primarily for the protection of conservation values. The work is funded by the Australian and New Zealand Environment and Conservation Council (ANZECC). Reference is made to herbicide evaluation trials [see Pritchard 1991].

2 ALBINGER, G. & BEIDERBECK, R. (1983). **Mesophyllzellen als Ausgangsmaterial zur in-vitro-kultur von *Asparagus plumosus* und anderen *Asparagus*-Arten** <Mesophyll cells as a starting material for the in vitro culture of *Asparagus plumosus* and other *Asparagus* species>. *Angewandte Botanik* 57, 205-208.

A procedure used to culture mesophyll cells of *Asparagus plumosus* is described and applied to 12 other *Asparagus* species. The procedure was unsuccessfully applied to *A. asparagoides*.

3 ALCOCK, C.R. (1977). **Introduced plants.** In *Innes National Park: a survey conducted by the Nature Conservation Society of South Australia*, editor M.R. Foale, pp. 33-34. (Nature Conservation Society South Australia, Underdale, South Australia).

Asparagus asparagoides was recorded from the eastern boundary of Innes National Park, South Australia.

4 ANONYMOUS [1992]. **Weeds of our bushland.** (Eltham Pest Plant Advisory Subcommittee, Eltham, Victoria). 62 pp.

Myrsiphyllum asparagoides is illustrated on page 44 with notes on the weed, its dispersal and control and similar local natives.

5 ANONYMOUS (1992). **Mornington Peninsula**

pest plants. (Frankston City Council, Frankston, Victoria). [36] pp.

Myrsiphyllum asparagoides is described on page 28 of the guide.

6 ANONYMOUS (1993). **An atlas of environmental weeds on Phillip Island 1993.** (Phillip Island Conservation Society, Victoria). 16 pp.

Included among the environmental weeds of Phillip Island, Victoria are *Myrsiphyllum asparagoides* and *M. scandens*. The distributions of both weeds are shown on a map of the island. Notes are provided on the location, recognition, dispersal and control of the weeds.

7 ANONYMOUS (1993). **Controlling bridal creeper.** *Australian Citrus News* 69 (12), 12.

Information is provided on the CSIRO Division of Entomology investigations into biological control of *Asparagus asparagoides*. It is reported that the weed has become a serious problem in several citrus growing regions.

8 ANONYMOUS (1993). **Controlling bridal creeper (*Myrsiphyllum asparagoides*).** CSIRO, Division of Entomology. Pamphlet May 1993, [2 pp].

This information sheet outlines a CSIRO Division of Entomology project on biological control of *Myrsiphyllum asparagoides* involving the search for biological control agents in South Africa.

9 ANONYMOUS (1994). **Weeds! Our greatest environmental threat to our farmland and our bushland in the Shire of Pakenham.** (Shire of Pakenham, Pakenham, Victoria). [pamphlet].

Myrsiphyllum asparagoides and *M. scandens* are illustrated with colour photographs along with 38 other common garden plants that are environmental weeds in the Shire of Pakenham, Victoria.

10 ARBER, A. (1924). ***Myrsiphyllum* and *Asparagus*: a morphological study.** *Annals of Botany* 38, 635-659.

The morphology of the phyllodes of *Asparagus asparagoides* and other *Asparagus* species are illustrated, described and compared.

11 ARMSTRONG, P.G. & MUIR, B.G. (1994). **A flowering calender for John Forrest National Park.** *Western Australian Naturalist* 19 (4), 301-315.

Asparagus asparagoides flowered in August and September. The weed was found in 1 of 22 study sites in John Forrest National Park, Western Australia.

12 ARNOLD, A.H. (1981). **Exotic plant invasions in coastal ecosystems.** In National Workshops on Coastal Management, 18 - 20 August, 8 - 10 September, 1981, Gosford, New South Wales and Queenscliff, Victoria. pp. 14-1 - 14-10. (Royal Australian Institute of Parks and Recreation, Belconnen, Australian Capital Territory).

Asparagus asparagoides is listed as an invasive weed in South Australian coastal areas, Port Fairy and Western Port, Victoria.

13 ATTIWILL, A.R. (1970). **On the spread of pines and bridal creeper by birds.** *South Australian Ornithologist* 25 (7), 212.

Sparrows, starlings, silvereyes, singing and spiny-cheeked honeyeaters feed on the fruits of *Asparagus asparagoides* and help spread the weed. The weed's presence in coastal scrub is noted along with a call for control measures.

14 AULD, B.A. & MEDD, R.W. (1987). **Weeds: an illustrated botanical guide to the weeds of Australia.** (Inkata Press, Melbourne, Victoria). 255 pp.

This book refers to *Asparagus* species on pages 30 - 31. *Asparagus asparagoides*, *A. densiflorus* and *A. officinalis* are briefly described and illustrated with photographs.

15 AUSTRALIAN INSTITUTE OF AGRICULTURAL SCIENCE (1976). **Threat of weeds to bushland: a Victorian study.** (Inkata Press, Melbourne, Victoria). 51 pp.

Asparagus asparagoides becomes dominant and suppresses the regrowth of native plants. It is listed as an important weed of public land in Victoria. It has been controlled along the Wimmera River flood plain in the Little Desert National Park. It is still a problem in the adjacent Reserved Forest. The weed is also present on Mornington Peninsula, including Cape Schanck National Park.

16 BAILEY, L.H. (1975). [1905]. **Cyclopedia of American horticulture.** 4th ed. Volume 1. (Gordon Press, New York). 2016 pp.

Asparagus species are mentioned on pages 104 - 108. *Asparagus medeoloides* [= *Asparagus asparagoides*] is briefly described and noted as commonly grown by florists for use in decorations. The glasshouse culture of *A. asparagoides* is described.

17 BAILEY, L.H. & BAILEY, E.Z. (1976). **Hortus third: a concise dictionary of plants cultivated in the United States and Canada.** (Macmillan Publishing

Company, New York). 1290 pp.

Cultivated species of *Asparagus*, including *A. asparagoides*, are listed and briefly described on pages 118 - 119.

18 BAKER, J.G. (1875). **Revision of the genera and species of Asparagaceae.** *Journal of the Linnean Society of London, Botany* 14, 508-632.

The genus *Asparagus* is described, followed by a key to species and species descriptions on pages 594 - 629. *Asparagus medeoloides* [= *A. asparagoides*] is described on pages 627 - 628.

19 BAKER, J.G. (1896). **Liliaceae.** *Flora Capensis* 6, 253-274.

The genus *Asparagus* is described, followed by a key to species and species descriptions on pages 256 - 274. *Asparagus medeoloides* [= *A. asparagoides*] is described on pages 272 - 273.

20 BANSAL, R.K., MENZIES, S.A. & BROADHURST, P.G. (1986). **Screening of Asparagus species for resistance to Stemphylium leaf spot.** *New Zealand Journal of Agricultural Research* 29, 539-545.

Fourteen taxa of ornamental and wild *Asparagus* species were screened for resistance to *Stemphylium* leaf spot. *A. officinalis* var. *pseudoscaber* and the cultivars Rutgers Beacon and Mary Washington were highly susceptible to the disease. Other accessions had low levels of infection (*A. setaceus*, *A. setaceus* cv. *Pyramidalis*, *A. macowanii* and *A. retrofractus*) or were highly resistant (*A. asparagoides*, *A. densiflorus* cv. *Sprengeri*, *A. virgatus*, *A. larcinus*, *A. verticillatus*, *A. compactus* and *A. densiflorus* cv. *Myers*), the latter being most resistant. [Abstract also appeared in *Agronomy Society of New Zealand*, special publication 5, 1986, page 219].

21 BEADLE, N.C.W., EVANS, O.D. & CAROLIN, R.C. (1962). **Handbook of the vascular plants of the Sydney district and Blue Mountains.** (The authors, Armidale, New South Wales). 597 pp.

A key on pages 433 - 434 is provided for *Asparagus sprengeri* [= *A. densiflorus*], *A. plumosus* and *A. officinalis*, all of which are naturalised around Sydney. *Myrsiphyllum asparagoides* is described on page 434 as a garden escape around Sydney and frequently found along creeks.

22 BEAUGLEHOLE, A.C. (1979). **The distribution and conservation of native vascular plants in the Victorian Mallee.** (Western Victorian Field Naturalists Clubs Association, Portland, Victoria). 99 pp.

Asparagus asparagoides is listed on page 34. The weed's presence is recorded in 5 of 16 areas of public lands in the Mallee region, Victoria.

23 BEAUGLEHOLE, A.C. (1980). **Victorian vascular plant checklists - 13 - study area and 24 - grid distribution.** (Western Victorian Field Naturalists

Clubs Association, Portland, Victoria). 206 pp.

Asparagus asparagoides is recorded in 8 of 13 study areas encompassing the State of Victoria.

24 BEAUGLEHOLE, A.C. (1981). **The distribution and conservation of vascular plants in the East Gippsland area, Victoria.** (Western Victorian Field Naturalists Clubs Association, Portland, Victoria). 124 pp.

Asparagus asparagoides is listed on page 33. The weed's presence is recorded in 2 of 10 areas of public lands in East Gippsland, Victoria.

25 BEAUGLEHOLE, A.C. (1982). **The distribution and conservation of vascular plants in the north central area, Victoria.** (Western Victorian Field Naturalists Clubs Association, Portland, Victoria). 102 pp.

Asparagus asparagoides is listed on page 31. The weed's presence is recorded in 7 of 13 areas of public lands in the north central area, Victoria.

26 BEAUGLEHOLE, A.C. (1983). **The distribution and conservation of vascular plants in the Melbourne area, Victoria.** (Western Victorian Field Naturalists Clubs Association, Portland, Victoria). 156 pp.

Asparagus asparagoides is listed on page 35. The weed's presence is recorded in 9 of 16 areas of public lands in the Melbourne area, Victoria.

27 BEAUGLEHOLE, A.C. (1984). **The distribution and conservation of vascular plants in the South Gippsland area, Victoria.** (Western Victorian Field Naturalists Clubs Association, Portland, Victoria). 90 pp.

Asparagus asparagoides is listed on page 25. The weed's presence is recorded in 1 of 8 areas of public lands in South Gippsland, Victoria.

28 BEAUGLEHOLE, A.C. (1984). **The distribution and conservation of vascular plants in the south west area, Victoria.** (Western Victorian Field Naturalists Clubs Association, Portland, Victoria). 124 pp.

Asparagus asparagoides is listed on page 39. The weed's presence is recorded in 6 of 16 areas of public lands in the south west area, Victoria.

29 BEAUGLEHOLE, A.C. (1985). **The distribution and conservation of vascular plants in the Gippsland Lakes hinterland area, Victoria.** (Western Victorian Field Naturalists Clubs Association, Portland, Victoria). 81 pp.

Asparagus asparagoides is listed on page 23. The weed's presence is recorded in 5 of 9 areas of public lands in the Gippsland Lakes hinterland, Victoria.

30 BEAUGLEHOLE, A.C. (1986). **The distribution and conservation of vascular plants in the Murray Valley area, Victoria.** (A.C. and H.M. Beauglehole,

Portland, Victoria). 81 pp.

Asparagus asparagoides is listed on page 24. The weed's presence is recorded in 3 of 11 areas of public lands in Murray Valley, Victoria.

31 BEAUGLEHOLE, A.C. (1987). **The distribution and conservation of vascular plants in the Wimmera area, Victoria.** (A.C. and H.M. Beauglehole, Portland, Victoria). 87 pp.

Asparagus asparagoides is listed on page 23. The weed's presence is recorded in 6 of 7 areas of public lands in the Wimmera area, Victoria.

32 BEAUGLEHOLE, A.C. (1988). **The distribution and conservation of vascular plants in the north east area, Victoria.** (A.C. and H.M. Beauglehole, Portland, Victoria). 98 pp.

Asparagus asparagoides is listed on page 26. The weed's presence is recorded in 4 of 14 areas of public lands in the north east area, Victoria.

33 BELL, D.T., MOREDOUNDT, J.C. & LONERAGAN, W.A. (1987). **Grazing pressure by the tammar (*Macropus eugenii* Desm.) on the vegetation of Garden Island, Western Australia, and the potential impact on food reserves of a controlled burning regime.** *Journal of the Royal Society of Western Australia* 69 (3), 89-94.

Plant species important in the diet of the tammar (*Macropus eugenii*) on Garden Island, Western Australia, were determined. The tammar diet was assessed by enclosure studies where 10 x 25 m enclosures were fenced to exclude tammars, by an analysis of epidermal remnants from faecal pellets and two stomach contents from road killed tammars, and direct observation of grazing. *Asparagus asparagoides* was more abundant inside two enclosures (78.9 versus 1.8 mean percentage cover at Beacon Head, 12.7% versus 0.2% at Cliff Point). The Beacon Head site had been recently burned and had vigorous regrowth of *A. asparagoides*. A third site had minor abundance of the plant outside the enclosure (0.2%) and the plant was absent from the fourth site. *A. asparagoides* was the third most abundant plant present as fragments in faecal pellet samples, although its presence may be underestimated due to the near complete digestion of young cladodes. Tammars were also observed grazing *A. asparagoides*. Preliminary comments are made on the potential impact of fire management on tammar populations.

34 BELLETTE, S., CARTER, R. & COOKE, D. [1994]. **Save the bush from weeds: bridal creeper - strangling native vegetation.** (Animal and Plant Control Commission and Save the Bush - Remnant Vegetation Program, South Australia). 4 pp.

This pamphlet describes *Myrsiphyllum asparagoides* and *M. declinatum* and gives their South Australian distribution. A variety of control techniques are suggested for *M. asparagoides*, including

monitoring in late winter or spring. One method is to dig out tubers and encourage native plant regeneration when there are small amounts of the weed. When the weed is mixed with native vegetation it is best to cut stems of the weed and to remove any fruits. With large areas of weed, undertake herbicide trials initially to assess the impact on native plants. In areas with little native understorey, use herbicide during late winter and rehabilitate with native plants. Herbicides mentioned, with application recommendations, are metsulfuron methyl and glyphosate. Biological control research being undertaken is outlined.

35 BENNETT, E.M. (1988). **The bushland plants of Kings Park Western Australia.** (Kings Park Board, Perth, Western Australia). 176 pp.

Myrsiphyllum asparagoides is listed and briefly described on page 78. It is noted as common in bushland and dense on the limestone escarpment of Kings Park.

36 BENNETT, E.M. (1995). **Plant species of the Kings Park bushland.** *Western Australian Naturalist* 20 (2), 97-118.

Myrsiphyllum asparagoides and *M. declinatum* are listed for all 12 areas surveyed for flora in Kings Park, Western Australia. *Myrsiphyllum asparagoides* flowers in August and September, while *M. declinatum* flowers in July and August.

37 BENSON, D.H. (1992). **The natural vegetation of the Penrith 1:100 000 map sheet.** *Cunninghamia* 2 (4), 541-596.

Table 7 on page 571 lists *Asparagus asparagoides*, *A. officinalis* and *A. densiflorus* as having 8%, 8% and 4% frequency in grey box, *Eucalyptus moluccana* - *E. tereticornis*, woodland.

38 BENSON, D.H., THOMAS, J. & BURKITT, J. (1990). **The natural vegetation of Bents Basin State Recreation area.** *Cunninghamia* 2 (2), 223-262.

Asparagus asparagoides is mentioned on pages 225, 257 and 262. *A. asparagoides* occurred in *Eucalyptus benthamii* tall open forest and to a lesser extent in *Tristaniopsis* and *Casuarina* woodland.

39 BERAHA, L. (1954). **An investigation on the environmental factors affecting the development of *Puccinia asparagi* DC.** Ph D. Thesis. University of Illinois, Illinois. 85 pp.

[Not seen. Cited in Thompson and Hepler (1956) as reporting that *Asparagus asparagoides* is resistant to the rust *Puccinia asparagi*.]

40 BLACK, J.M. (1943). **Flora of South Australia. Part 1. Cyatheaceae - Orchidaceae.** 2nd ed. (Government Printer, Adelaide). 253 pp.

Asparagus medeoloides [= *A. asparagoides*] is described on page 186. The plant is established near Goolwa and Tod River, Eyre Peninsula, South

Australia.

41 BLACK, J.M. (1978). **Flora of South Australia. Part 1. Lycopodiaceae - Orchidaceae.** 3rd ed. (Government Printer, Adelaide). 466 pp.

Page 339 gives a description and distribution of *Asparagus asparagoides*, *A. crispus* [= *A. declinatus*] and *A. officinalis* in South Australia.

42 BODKIN, F. (1986). **Encyclopaedia botanica: the essential reference guide to native and exotic plants in Australia.** (Angus & Robertson, Sydney, New South Wales). 1083 pp.

Brief notes on origins, description, cultivation and propagation are given for; *Asparagus asparagoides* [origin incorrectly given as Northern Hemisphere], *A. densiflorus*, *A. falcatus*, *A. medeoloides* [= *A. asparagoides*], *A. meyeri* [= *A. densiflorus*], *A. myriocladus*, *A. officinalis*, *A. plumosus*, *A. racemosa*, *A. sativus*, *A. setaceus* and *A. sprengeri* [= *A. densiflorus*] on pages 108 to 109.

43 BROOKES, M. & BARLEY, R. (1992). **Plants listed in nursery catalogues in Victoria 1855 - 1889.** (Ornamental Plant Collections Association, South Yarra, Victoria). 316 pp.

Myrsiphyllum asparagoides is listed on page 188 and *Protasparagus plumosus* and *P. virgatus* on page 239. All were recorded in the plant catalogues of G. Smith (1886), Law, Somner & Co (1886) and J. Scott & Son (1889).

44 BUCHANAN, R.A. (1981). **Common weeds of Sydney bushland.** (Inkata Press, Melbourne, Victoria). 127 pp.

Pages 92 and 93 give an illustration of *Asparagus asparagoides* and brief description of the family, origin, appearance, stem and leaves, flowers and fruit, confusing species, removal and places of occurrence of the weed.

45 BURBIDGE, N.T. (1963). **Dictionary of Australian plant genera *Gymnosperms* and *Angiosperms*.** (Angus and Robertson, Sydney, New South Wales). 345 pp.

Page 109 states that *Elachanthera* [see Mueller 1886] is based on a garden plant of *Asparagus asparagoides*.

46 CARR, B. (1996). **Bridal creeper at Woodman Point - its current status and recommended control strategies.** *Plant Protection Quarterly* 11 (2), 67-69.

The current status of bridal creeper (*Asparagus asparagoides*) at Woodman Point, Western Australia, is described along with historical evidence of its origin and spread. Observations of the area and densities of bridal creeper are described and illustrated. Possible methods of control are investigated and the involvement of the Friends of Woodman Point group noted. Recommendations are given on a possible

control strategy. [Author's abstract].

47 CARR, G.W. (1993). **Exotic flora of Victoria and its impact on indigenous biota.** In Flora of Victoria. Volume I. Introduction, editors D.B. Foreman and N.G. Walsh, pp. 256-297. (Inkata Press, Melbourne, Victoria).

Blackbirds are recorded as dispersing the seed of *Myrsiphyllum asparagoides*. Appendix 11.1 lists the vegetation formations invaded by *M. asparagoides* and other details on the weed.

48 CARR, G.W., YUGOVIC, J.V. & ROBINSON, K.E. (1992). **Environmental weed invasions in Victoria. Conservation and management implications.** (Department of Conservation and Environment and Ecological Horticulture Pty Ltd, Clifton Hill, Victoria). 78 pp.

The front cover shows a photograph of *Myrsiphyllum asparagoides* in *Leptospermum laevigatum* (coast tea-tree) shrubland in Point Nepean National Park, Victoria. *Myrsiphyllum asparagoides* and *M. scandens* are listed on page 51. Vegetation formations invaded by *M. asparagoides* are dry coastal vegetation, heathland and heathy woodland, mallee shrubland, lowland grassland and grassy woodland, dry sclerophyll forest and woodland, damp sclerophyll forest, riparian vegetation, rock outcrop vegetation, and warm temperate rainforest. Vegetation formations invaded by *M. scandens* are heathland and heathy woodland, dry sclerophyll forest and woodland, damp sclerophyll forest, and riparian vegetation.

49 CARTER, R.J. & COOKE, D.A. (1992). **Biological control of proclaimed plants: boneseed, blackberry, bridal creeper, caltrop and horehound.** In Third Biennial Animal and Plant Conference: Working papers, compilers D.A. Creeper and M.L. Williams, 14 - 16 July, 1992, Roseworthy Campus, University of Adelaide. pp. 63-66. (Animal and Plant Control Commission of South Australia, Adelaide, South Australia).

Progress with herbicide and biological control research is reviewed. [Permission of the authors is required before citing reference].

50 CARTER, R.J. & CUMMINS, J.A. (1988). **Distribution and abundance of proclaimed plants Eyre Peninsula and west coast, South Australia, 1985.** South Australia. Department of Agriculture. Technical Report 132, 1-98.

The distribution of bridal creeper (*Myrsiphyllum asparagoides*) on Eyre Peninsula and west coast of South Australia, is recorded on page 64 and shown as a map on page 65.

51 CHANDLER, C.A. (1988). **Environmental weeds of the Mornington Peninsula.** *Trees and Natural Resources* 30 (3), 19-22.

On the Mornington Peninsula, Victoria,

Asparagus asparagoides is found along the ocean coast from Point Nepean to Gunnamatta, also Flinders and Somers. On the bay side of the Peninsula, it is found from Seaford to Mt Eliza, including Balcombe Creek.

52 CHAPMAN, A.D. (1991). **Australian plant name index: A-C.** (Australian Flora and Fauna Series: 12). (Australian Government Publishing Service, Canberra, ACT). 897 pp.

Asparagus asparagoides is listed on page 279.

53 CHAPMAN, A.D. (1991). **Australian plant name index: K-P.** (Australian Flora and Fauna Series: 14). (Australian Government Publishing Service, Canberra, ACT). 2475 pp.

Myrsiphyllum asparagoides, *Medeola*, *Protasparagus* are listed on pages 2053, 1946 and 2412 respectively.

54 CHAPMAN, A. & NEWBEY, K.R. (1995). **A biological survey of the Fitzgerald area, Western Australia.** CALM Science. Supplement 3, 1-258.

On page 204, *Asparagus asparagoides* is recorded from riverine and swamp land surfaces in the Fitzgerald areas, Western Australia.

55 CHITTENDEN, F.J. (1974). **Dictionary of gardening.** 2nd ed. (Clarendon Press, Oxford). 512 pp.

Asparagus species are treated on pages 193 - 197. *Asparagus medeoloides* [= *A. asparagoides*] is briefly described and noted as being first introduced into the United Kingdom in 1702. Two varieties, aureus and myrtifolius, are listed.

56 CLELAND, J.B. (1952). **Dispersal of plants by birds.** *South Australian Ornithologist* 20, 72-77.

Plants of *Asparagus medeoloides* [= *A. asparagoides*] are occasionally found at the foot of trees and shrubs in National Park, Belair and on the Adelaide Plains, South Australia. Previously, the plant was found between Goolwa and Currency Creek and near the Tod River Reservoir on Eyre Peninsula, South Australia. It is suggested that silvereyes and starlings might disperse seed of this weed and also garden *Asparagus* [= *A. officinalis*].

57 CLELAND, J.B. (1969). **Bridal creeper (*Asparagus medeoloides*) and its spread by birds.** *South Australian Ornithologist* 25 (4), 110.

Asparagus medeoloides [= *A. asparagoides*] was observed 30 years previous near the Tod River, Eyre Peninsula, South Australia. It is now widespread and abundant in the Sandy Creek National Park. Its spread is attributed to birds.

58 CLIFFORD, H.T. & CONRAN, J.G. (1987). **4.** *Myrsiphyllum.* *Flora of Australia* 45, 163-165.

The genus *Myrsiphyllum* and the species *M. asparagoides*, *M. scandens* and *M. declinatum* are described and distributions and key are given along

with notes on cultivation and distinguishing characteristics. The flowering branchlet and flower and pedicel of *M. asparagoides* are illustrated in figure 56 E and F on page 160. The Australian distribution of *M. asparagoides* (map 173), *M. declinatum* (map 174) and *M. scandens* (map 175) are mapped on page 432.

59 CONRAN, J.G. (1994). **Liliaceae**. In Flora of Victoria. Volume 2. Ferns and allied plants, conifers and monocotyledons, editors N.G. Walsh and T.J. Entwisle, pp. 637; 640 - 643. (Inkata Press, Melbourne, Victoria).

Asparagaceae are covered on pages 640 - 643. The Flora gives descriptions of the genera and species with maps showing the distribution of each species in Victoria. Included are *Asparagus officinalis* (illustrated), *Protasparagus plumosus*, *Myrsiphyllum asparagoides* (illustrated) and *M. scandens*.

60 COOKE, D. (1991). **Save the bush from weeds. Bridal creeper - strangling native vegetation**. pp. 2. (South Australia Animal and Plant Control Commission, Adelaide).

This pamphlet describes bridal creeper, *Myrsiphyllum asparagoides*, and its distribution and impact in South Australia. Control methods using herbicides are described.

61 COOKE, D. (1992). **Bridal creeper and Polygala**. In Third Biennial Animal and Plant Conference: Working papers, compilers D.A. Creeper and M.L. Williams, 14 - 16 July, 1992, Roseworthy College, University of Adelaide. pp. 102-103. (Animal and Plant Control Commission South Australia, Adelaide, South Australia).

Myrsiphyllum asparagoides and *Polygala myrtifolia* infest Bernoulli Conservation Park south of Cape Jaffa, South Australia, in *Acacia sophorae* and *Leucopogon parviflorus* scrub. Herbicide trials with glyphosate (with and without adjuvant), atrazine, and metsulfuron methyl found the best overall control with glyphosate. However, all herbicide treatments inhibited native plant regeneration. Burning appeared to be a more effective weed control than herbicides. [Permission of the authors required before citing reference].

62 COOKE, D. (1994). **Biological control of weeds: an update**. In Managing Weeds for Landcare 1994: a workshop on Protecting our Land from Invading Weeds, compiler R.J. Carter, 12 March, 1994, Adelaide, South Australia. (Animal and Plant Control Commission, Adelaide, South Australia).

This overview of weed biological control programs notes that preliminary surveys on *Asparagus asparagoides* in South Africa have identified several organisms on the weed.

63 COOKE, D.A. & ROBERTSON, M. (1990). **Bridal creeper, *Myrsiphyllum asparagoides*, in South**

Australia. In Proceedings of the Ninth Australian Weeds Conference, editor J.W. Heap, 6 - 10 August, 1990, Adelaide, South Australia. pp. 113-115. (Crop Science Society of South Australia, Adelaide, South Australia).

This conference paper gives an Australian and more detailed South Australian distribution of *Myrsiphyllum asparagoides*. The weed is found in 45 of 63 Animal and Plant Control Board regions in South Australia. It was not found in non-irrigated areas receiving less than 300 mm of annual rainfall. The presence of isolated populations indicates that the weed has not reached the limits to its distribution. Measurements of cladode length and width, and shape of cladodes and tubers of South Australian material were compared with South African data in Jessop (1966). It was concluded that Australian plants were less variable and matched plants found around Capetown, South Africa. The life cycle is described and plant associations given. Control techniques mentioned include hand weeding and herbicide spraying. Glyphosate, metsulfuron methyl or a mixture of paraquat, amitrole, and MSMA were more effective than bromacil and amitrole. Heavy grazing by sheep has been used to reduce plant density before spraying. [Also re-published in Kowari 2, 150 - 151 (1991)].

64 COURTOT, Y. (1961). **Etude du mouvement rotatif de la tige de l'*Asparagus medeoloides* (Liliaceae)** <A study of the revolving movement of the stem of *Asparagus medeoloides* (Liliaceae)>. *Annales Scientifique de l'Université de Besançon 2ème Série, Botanique* 17, 27-37.

The circumnutation [circular movement] of stems of *Asparagus medeoloides* [= *A. asparagoides*] was studied, including anatomical sections of the mobile region.

65 COURTOT, Y. (1962). **Action de l'acide gibbérellique sur la forme des cladodes de l'*Asparagus medeoloides*** <Action of gibberellic acid on the shape of cladodes of *Asparagus medeoloides*>. *Comptes Rendus des Séances de l'Académie des Sciences* 255 (17), 1412-1413.

The application of gibberellic acid to seedlings of *Asparagus medeoloides* [= *A. asparagoides*] caused an elongation of cladodes. The response was related to the amount of gibberellic acid applied.

66 COURTOT, Y. (1962). **Action de l'acide gibbérellique sur la structure anatomique de l'*Asparagus medeoloides*** <Action of gibberellic acid on the anatomy of *Asparagus medeoloides*>. *Comptes Rendus des Séances de l'Académie des Sciences* 255 (17), 2167-2169.

The application of gibberellic acid to seedlings of *Asparagus medeoloides* [= *A. asparagoides*] caused anatomical modifications to the main stems and cladodes. The vascular bundles were smaller and less numerous in treated plants.

67 COURTOT, Y. (1964). **Périodicité structurale dans la vascularisation des cladodes d'une Asperge** <Structural periodicity in the vascularisation of cladodes of an asparagus>. *Phyton. Annales rei Botanicae* 11 (1-2), 64-65.

Veins in the middle of cladodes are parallel and join together at the edge and ends of the cladode. This initial study showed a periodicity in the mode of union of the veins.

68 COURTOT, Y. (1965). **Recherches sur la morphologie, l'anatomie, la croissance et les mouvements revolutifs de deux Liliacees: *Bulbine annua* et *Asparagus medeoloides*** <Studies on the morphology, anatomy, growth and rotational movements of two Liliaceae: *Bulbine annua* and *Asparagus medeoloides*>. *Annales Scientifiques Université de Besançon Botanique 3ème Série* 3 (1), 5-98.

This thesis examines aspects of the growth of *Asparagus medeoloides* [= *A. asparagoides*] (Asparagaceae) and *Bulbine annua* (Liliaceae). The first part of the thesis describes seedling morphology. Variations noted were seedlings of *A. asparagoides* with two stems and fasciation. In the second part of the thesis, the effects of gibberellic acid on growth were studied. There were no major changes to *B. annua* following treatment with gibberellic acid. In *A. asparagoides* there are two types of stem, erect and climbing. Application of gibberellic acid did not favour formation of climbing stems, but did increase inter node length. Gibberellic acid caused elongation and changes in the anatomical structure of cladodes. The third aspect of the thesis was a study of the effect of light at 3900, 2600, 1700, 1000, 660 and 440 Lux intensity on growth of *A. asparagoides*. Maximum growth of stems occurred at 660 Lux. The length of the growth period increased at lower light intensities. The changes in growth were attributed to an increase in the number of nodes at lower light intensities. Lower light intensities also decreased branching and reduced vascularisation. The fourth part of the thesis is a discussion on the interpretation of the origins of cladodes. The final part of the thesis is a study of circumnutation [circular movement] of the first leaf of *B. annua* and stems of *A. asparagoides*. The anatomy of the stems was investigated. The movement of the stems is characterised by variation in the sense of movement and variation related to temperature.

69 CSIRO DIVISION OF ENTOMOLOGY (1995). **Report of Research July 1993 - July 1995**. (CSIRO Division of Entomology, Black Mountain, ACT). 157 pp.

Pages 124 - 125 mentions surveys in South Africa for biological control agents against *Myrsiphyllum asparagoides* in Australia. A seed-feeding *Eurytoma* sp., a cicadellid, a *Crioceris* leaf beetle and a rust fungus (*Puccinia myrsiphylli*) are being investigated. A photo of a *M. asparagoides* infestation is shown on

page 117. The rust is illustrated with a photo on page 125.

70 CULLEN, J. (1986). **113. *Asparagus* Linnaeus**. In *The European garden flora: a manual for the identification of plants cultivated in Europe, both out-of-doors and under glass*. Volume 1. Pteridophyta, Gymnospermae, Angiospermae - Monocotyledons (Part 1), editors S.M. Walters, A. Brady, C.D. Brickell, J. Cullen, P.S. Green, J. Lewis, V.A. Matthews, D.A. Webb, P.F. Yeo and J.C.M. Alexander, pp. 260-263. (Cambridge University Press, London).

Asparagus species are treated on pages 260 - 263. On page 263, *A. asparagoides* is briefly described and noted as naturalised in the Mediterranean area.

71 CUNNINGHAM, G.M., MULHAM, W.E., MILTHORPE, P.L. & LEIGH, J.H. (1981). **Plants of western New South Wales**. (Soil Conservation Service of N.S.W., New South Wales). 766 pp.

Page 182 notes that *Asparagus asparagoides* is naturalised in a citrus grove near Moama and has been collected near Griffith. *Asparagus officinalis* is included as a naturalised species, and is described and illustrated.

72 DAVIES, R.J.P. (1986). **Threatened plant species of the Mount Lofty Ranges and Kangaroo Island regions of South Australia**. (Conservation Council of South Australia, South Australia). 174 pp.

Populations of *Pseudanthus micranthus* and *Spyridium coactilifolium* from the Fleurieu Peninsula, South Australia, were identified as potentially threatened by the spread of *Asparagus asparagoides*. It is recommended that control in Waitpinga Scrub and Parsons Beach Scrub be given high priority. Invasion by weeds, including *A. asparagoides*, possibly caused the absence of seedlings in populations of *Pomaderris halmaturina* on Kangaroo Island, South Australia.

73 DAVIES, R.J.P. (1991). **Threatened plant species of the Murray Mallee, Mount Lofty Ranges and Kangaroo Island regions of South Australia**. (Conservation Council of South Australia, [Place of publication not stated]). 159 pp.

Two populations of *Pterostylis arenicola* from south of Tailem Bend, South Australia, were identified as potentially threatened by the spread of *Myrsiphyllum asparagoides*.

74 DAVIES, R.J.P. (1995). **Threatened plant species management in National Parks & Wildlife Act Reserves in South Australia**. (Black Hill Flora Centre, Athelstone, South Australia). 184 pp.

Threats were identified and recommendations made for the management of 23 species of threatened flora on 15 nature conservation reserves in South Australia. Glyphosate is recommended for control of *Myrsiphyllum asparagoides* during June - August. Small infestations were dug up. *Myrsiphyllum*

asparagoides was identified as a threat to the following endangered species; *Prasophyllum pallidum* (Belair National Park), *Prostanthera calycina* (Calpatanna Waterhole Conservation Park), *Pterostylis arenicola* (Coorong National Park), *Thelymitra epipactoides* (Coorong National Park, Wanilla Conservation Park (Coorong National Park), *Eremophila barbata* (Hincks Conservation Park), and *Ptilotus beckerianus* (Wanilla Conservation Park). Percentage cover of *M. asparagoides* is given for some of the sites.

75 DEARMAN, A. (1994). **Bridal creeper - chemical treatment at Tintinara.** In Fourth Biennial Animal and Plant Control Conference: Working papers, editor D.A. Cooke, 2 - 4 August, 1994, Loxton, South Australia. pp. 34-38. (Animal and Plant Control Commission, Adelaide, South Australia).

Myrsiphyllum asparagoides was surveyed on road reserves, Dukes Highway and Railway Reserve in Coonalpyn Downs Council in 1990. The total area was 3,848 ha of which 131 ha was calculated to be shaded by growing *M. asparagoides*. A trial in 1990 using the herbicide metsulfuron methyl and various surfactants gave up to 98% control when compared with unsprayed treatments. A trial in 1991 using metsulfuron methyl gave up to 95% reduction in *M. asparagoides*. Recommendations are made on application rates and methods. Trials were undertaken in 1993 using metsulfuron methyl, glyphosate and surfactants. [Permission of the authors required before citing reference].

76 DIXON, B. and KEIGHERY, G. (1995). **Weeds and their control.** In Managing Perth's bushlands, editors M. Scheltema and J. Harris, pp. 26-144. (Greening Western Australia, Perth).

The number, origin, spread and importance of introduced plant species in Western Australia are reviewed. The Perth metropolitan area has 357 species of environmental weeds recorded in conservation areas or remnant bushland. They are listed in Table 5 on pages 65 - 144 with information on the plant, priority ranking and methods of control. Some of the common weeds, including *Myrsiphyllum asparagoides* (Figures 37 a & b) are illustrated in colour in Figures 15 - 53. *Myrsiphyllum asparagoides* and *M. declinatum* are ranked among the most serious weeds. Control recommendations are made on page 113. *Protasparagus densiflorus* is mentioned on page 125 and is ranked as a minor weed.

77 DIXON, I.R. (1996). **Control of bridal creeper (*Asparagus asparagoides*) and the distribution of *Asparagus declinatus* in Kings Park bushland, 1991-1995.** *Plant Protection Quarterly* 11 (2), 61-63.

Herbicide trials to control *Asparagus asparagoides* in Kings Park, Western Australia, were undertaken using glyphosate, metsulfuron methyl, sulfometuron methyl and mixtures with various wetting agents. The effect of herbicides on native vegetation is

assessed. Recommendations are made for a spraying program of at least three years. A map is also given showing the distribution of *A. declinatus* in the Park.

78 DIXON, I.R., KEYS, K., PAYNTER, R., KEIGHERY, B., DIXON, K.W. & HOPPER, S.D. (1995). **Kings Park bushland management plan 1995-2005.** (Kings Park and Botanic Garden, West Perth, Western Australia) 147 pp.

Myrsiphyllum asparagoides is included among the environmental weeds of greatest concern in the bushland of Kings Park, Western Australia. The weed is identified as a priority species for control.

79 DRUCE, G.C. (1914). [Article title unknown]. *Report of the Botanical Society and Exchange Club of the British Isles* 3, [pagination unknown].

The new combination of *Asparagus asparagoides* is made on page 414, based on *Medeola asparagoides*.

80 EARL, J. (1994). **Boneseed and bridal creeper control in native vegetation.** In Managing Weeds for Landcare 1994: a workshop on Protecting our Land from Invading Weeds, compiler R.J. Carter, 12 March, 1994, Adelaide, South Australia. (Animal and Plant Control Commission, Adelaide, South Australia).

The herbicides triclopyr, glyphosate, and metsulfuron methyl were trialled against *Myrsiphyllum asparagoides*. Best control was with metsulfuron methyl at 10g/100L. In most cases over 90% control was achieved and subsequent year treatments were not required for some plots.

81 EDWARDS, P.B. (1995). **Biological control of bridal creeper, *Myrsiphyllum asparagoides* - a review of research in South Africa.** In Weeds of Conservation Concern: Seminar and workshop papers, editors D. Cooke and J. Choate, 5 - 6 April, 1995, Adelaide, South Australia. pp. 22-26. (Department of Environment and Natural Resources, Adelaide, South Australia).

This paper reviews the distribution of bridal creeper, *M. asparagoides*, in South Africa and provides an update on research in progress on the search for potential biological control agents. Aspects considered for each agent are its distribution in South Africa and hence potential distribution in Australia, its impact on plant growth and productivity, the development of laboratory rearing techniques and preliminary host specificity testing. [Author's abstract].

82 EDWARDS, P.B. (1996). **Biological control of bridal creeper (*Asparagus asparagoides*) - a review of potential agents from South Africa.** *Plant Protection Quarterly* 11 (2), 48.

A summary is presented of research on the biological control of *Asparagus asparagoides* based on Edwards (1995).

83 EDWARDS, P.B. & WITT, A.B.R. (1995).

Biological control of bridal creeper: assessment of potential agents in South Africa. CSIRO, Division of Entomology. Progress Report February 1995.

This unpublished report was prepared for the South Australian Animal and Plant Control Commission. The report presents background to the project on surveying in South Africa for biological control agents for *Myrsiphyllum asparagoides*. The taxonomy and phenology aspects of the work identified inconsistencies in the published distributions and identification of the weed. Insects and pathogens associated with *M. asparagoides* are listed with annotations. Species mentioned are *Eurytoma* sp., a cicadellid, *Crioceris* sp., a cecidomyiid, a lepidopteran and *Puccinia myrsiphylli*. Experimental evidence of the impact of insects and the status of work on host specificity and laboratory rearing are presented with recommendations for future research in South Africa.

84 ESLER, A.E. & ASTRIDGE, S.J. (1987). **The naturalisation of plants in urban Auckland, New Zealand 2. Records of introduction and naturalisation.** *New Zealand Journal of Botany* 25, 523-537.

Asparagus asparagoides is listed as naturalised during the 1900 to 1940 period in urban Auckland, New Zealand. *Asparagus scandens* and *A. setaceus* are listed as naturalised during 1940 to 1970 in the same region.

85 FELLINGHAM, A.C. & MEYER, N.L. (1995). **New combinations and a complete list of *Asparagus* species in southern Africa (Asparagaceae).** *Bothalia* 25 (2), 205-209.

The history of genus names in the Asparagaceae is outlined. After a study of the connivent filaments from species not previously considered, it was concluded that *Asparagus* should be the only genus in the Asparagaceae, without division of the southern African species into subgenera. A complete list of southern African *Asparagus* species follows giving new combinations and reinstatements.

86 FLINT, C., YOUNG, K. & JOLLEY, L. [1978]. **Distribution of exotic flora in the Nepean district January - March, 1978.** (National Parks Service, Victoria). 45 pp.

This unpublished report notes that *Asparagus asparagoides* is found from London Bridge to the start of Rye Ocean Beach, and Cape Schanck National Park, Victoria. A map indicating infestations is given for the Nepean district. [Permission required before citing reference].

87 FORDE, N. (1986). **Relationships between birds and fruits in temperate Australia.** In Dynamic partnership. The birds and plants of southern Australia, editors H.A. Ford and D.C. Paton, pp. 42-58. (Government Printer, Adelaide, South Australia).

Emus, silver gulls, silvereyes, singing and spiny-

cheeked honeyeaters, and common starlings are recorded in this review as eating the fleshy fruits of *Asparagus asparagoides*. Seeds of *A. asparagoides* were observed in the faeces of emus, silver gulls and silvereyes. Superb fairywrens were noted to peck at fruit. The author also suspects the fruits are consumed by blackbirds.

88 FOX, J. (1984). **A comparison of two climbing plant species (one native and one exotic) at Woodman Point, Western Australia.** *Western Australian Naturalist* 16 (1), 11-15.

Observations are presented on the distribution, abundance and germination behaviour of *Asparagus asparagoides* and *Clematis microphylla* found at Woodman Point, Western Australia. In *Acacia rostellifera* thickets, *A. asparagoides* occurred more frequently than *C. microphylla* whereas the species abundance was reversed in *Eucalyptus gomphocephala* woodland. *C. microphylla* germinated at 10, 15, 20, but not at 25°C, whereas *A. asparagoides* germinated at all temperatures. The role of seed germination in competition between the two species is discussed.

89 FRANCE, R. (1996). **Observations and management of bridal creeper at Stokes National Park, Western Australia.** *Plant Protection Quarterly* 11 (2), 70.

Five infestations of *Asparagus asparagoides* covered approximately 150 ha in Stokes National Park, Western Australia. A 20 ha infestation is found near the old Moir Homestead that dates from 1873 and may have been the source of the plant. A herbicide trial using glyphosate was successful in killing *A. asparagoides* regenerating after fire.

90 FRICKE, R. (1983). **Blackbirds and smilax.** *The Bird Observer* 612-613, 10.

Blackbirds are considered a serious menace to native vegetation on the Mornington Peninsula, Victoria, due to their consumption and dispersal of seeds of *Asparagus asparagoides*. The weed was rare twenty years previous and has now taken over parts of the southern Peninsula.

91 GHOSH, B. & SEN, S. (1991). **In vitro on *Asparagus* research - a short report.** *Asparagus Research Newsletter* 8 (2), 1-3.

A protocol is established for callus production, shoot culture and somatic embryogenesis for *Asparagus plumosus*, *A. racemosus*, *A. cooperi*, *A. officinalis*, *A. asparagoides*, *A. verticillatus* and *A. falcatus*. Artificial seeds were formed from *A. cooperi* somatic embryos. A general range of chromosome numbers was noted to be $2n = 20$ to 60, but not attributed to plant species. Isoenzyme patterns and the presence of sarsapogenin (including for *A. pyramidilis* and *A. robustus*) are being studied.

92 GIBSON, N., KEIGHERY, B.J., KEIGHERY,

G.J., BURBIDGE, A.H. & LYONS, M.N. (1994). **Floristic survey of the southern Swan Coastal Plain: unpublished report for the Australian Heritage Commission prepared by Department of Conservation and Land Management and the Conservation Council of WA (Inc.)**. Department of Conservation and Land Management, Western Australia. 228 pp.

Myrsiphyllum asparagoides is listed as a common species in *Callitris preissii* (or *Melaleuca lanceolata*) forests and woodlands on the Swan Coastal Plain, Western Australia. It was present in 5 of the 7 quadrats surveyed. The weed occurred in five other vegetation types with a frequency of 5 to 13% of quadrats. The weed is listed in the flora of the southern Swan Coastal Plain on page 165.

93 GRAHAM, M.S. & MITCHELL, M.D. (1996). **Practical experiences in management for control of bridal creeper (*Asparagus asparagoides*) on nature reserves in the southern wheatbelt of Western Australia**. *Plant Protection Quarterly* 11 (2), 64-66.

During the last six years significant steps have been made towards controlling bridal creeper (*Asparagus asparagoides*) on nature reserves in CALM's Katanning District, Western Australia. The District has adopted an approach to the bridal creeper problem which involves planning, control measures, management strategies and (importantly) a commitment to achieve positive results by a wide range of staff. This approach has resulted in improvements in techniques for control, increased efficiencies in operations and management strategies for reducing spread of this weed. These improvements have been, and will continue to be, incorporated into a planned approach to the control of bridal creeper. [Author's abstract].

94 GRANT, M. (1996). **Bridal creeper occurrence in Albany District**. *Plant Protection Quarterly* 11 (2), 71.

The distribution of *Asparagus asparagoides* in the Albany District, Western Australia, is associated with early settlement. The weed is found around Ravensthorpe and Kundip including the nearby Steere River from the upper reaches to the junction with the Phillips River at the Culham Inlet. It is also present on the lower reaches of the Gairdner River and at Hopetoun.

95 GREEN, P.S. (1993). **Threatened plants of Yorke Peninsula**. (Conservation Council of South Australia, Adelaide, South Australia). 89 pp.

The understorey vegetation associated with *Acacia retinocarpa*, an endangered species on the Yorke Peninsula, South Australia, is threatened by *Myrsiphyllum asparagoides* invasion (page 18).

96 GREEN, P.S. (1994). **Liliaceae**. *Flora of Australia* 49, 502-513.

A genus description, key to species and descriptions of *Asparagus asparagoides*, *A. aethiopicus* [= *A. densiflorus*] and *A. plumosus* are given in pages 504 - 505. *Asparagus asparagoides* is naturalised and spreading near Lagoon Road on Lord Howe Island. Both *A. aethiopicus* and *A. plumosus* are considered serious pests and are found on Norfolk Island and Lord Howe Island.

97 GUILFOYLE, W.R. (1883). **Catalogue of plants under cultivation in the Melbourne Botanic Gardens**. (John Ferres, Government Printer, Melbourne, Victoria). 200 pp.

Medeola asparagoides [= *Asparagus asparagoides*] is listed with authority, common name, description, order and habitat (origin) on page 100.

98 HARDEN, G.J. (1993). **175 Asparagaceae**. In *Flora of New South Wales*, Volume 4. editor G.J. Harden, pp. 44-47. (New South Wales University Press, New South Wales).

A key, description, illustrations, general distribution, more detailed distribution in New South Wales and naturalisation status are given for *Asparagus officinalis*, *Protasparagus aethiopicus* [= *Asparagus densiflorus*], *P. plumosus*, *P. virgatus*, *P. africanus*, *Myrsiphyllum asparagoides* and *M. scandens* on pages 44 - 47.

99 HARTLEY, W. (compiler) (1979). **A checklist of economic plants in Australia**. (CSIRO, Melbourne, Victoria). 213 pp.

Bridal creeper is given as the common name of *Asparagus asparagoides* in Australia.

100 HEALY, A.J. (compiler) (1984). **Standard common names for weeds in New Zealand: including casuals, economic plant escapes, and agricultural seed impurities**. 2nd ed. (New Zealand Weed and Pest Control Society, Hastings, New Zealand). 207 pp.

Smilax is given as the common name of *Asparagus asparagoides* in New Zealand.

101 HEALY, A.J. & EDGAR, E. (1980). **Flora of New Zealand. Volume III: Adventive cyperaceous, petalous & spathaceous monocotyledons**. (P.D. Hasselberg, Government Printer, Wellington, New Zealand). 220 pp.

A key, description, distribution in New Zealand, dates of first collection and record, and habitat notes are given for *Asparagus asparagoides*, *A. officinalis*, *A. scandens* and *A. setaceus* on pages 51 to 53. *Asparagus asparagoides* in New Zealand was first collected in 1950 and first recorded in 1958.

102 HERTER, G. (1943). **Flora ilustrada del Uruguay** Volume 1, fascile 5. (The author, Krakau). xiv - xvi, plates 641 - 1024.

Asparagus asparagoides is illustrated in figure 889, plate 223 without further explanation.

103 HOBBS, R.J. (1991). **Disturbance a precursor to weed invasion in native vegetation.** *Plant Protection Quarterly* 6 (3), 99-104.

This paper examines the problem of disturbance in native vegetation and its relation to invasion by weeds. Disturbance can be defined as anything that directly kills or damages individuals within a given area, or affects resource levels in that area. Weed invasion is generally enhanced by disturbance, and a survey of Australia's most serious weeds confirms that most require some form of disturbance for their dispersal or establishment. All disturbances do not lead to invasions. Increased invasion is likely only if disturbance increases the availability of a limiting resource, and if propagules are available. Natural disturbance regimes are essential to the maintenance of native vegetation, but human activities usually add new types of disturbance to the existing regime. Management of disturbance must be carried out in recognition of the requirements of the native vegetation and with adequate assessment of the relative importance of different disturbance types in promoting invasion. Human-induced disturbances generally need to be minimized. [Author's abstract].

104 HOOKER, J.D. (1866). *Myrsiphyllum asparagoides*. *Curtis's Botanical Magazine* 93 (series III, 22), tab. 5584.

Myrsiphyllum asparagoides is described and synonymy given. The plant was introduced into England by the Duchess of Beaufort in 1702, but is not extensively cultivated. Plants at Kew were re-introduced from the Cape of Good Hope colony. The plant is recommended as a horticultural species. The foliage and flowers of the plant are illustrated.

105 HOSKING, J.R. (1990). **Flowering times of plants found in Oxley Park, Tamworth.** *Cunninghamia* 2 (2), 197-216.

Asparagus asparagoides is locally frequent and appears to be spreading in Oxley Park, New South Wales. *Asparagus asparagoides* is mentioned on pages 202, 213 and 214.

106 HUMPHRIES, S.E., GROVES, R.H. & MITCHELL, D.S. (1991). **Plant invasions of Australian ecosystems: a status review and management direction.** *Kowari* 2, 1-134.

Myrsiphyllum asparagoides is listed among the 18 top environmental weeds of Australia with action required within two to five years. The weed was identified as a serious environmental weed in Western Australia (page 103), Victoria (page 105) and South Australia (page 104). The distribution, biology and invasion potential of *M. asparagoides* are summarised on page 89. Figure 9.9 on page 90 shows the Australian distribution. Recommendation is made for continued funding of control related research, including ecological research and biological control. [This work also appears as a separate report; (1991) Report to

Australian National Parks and Wildlife Service endangered species program project no. 58, 166 pp.].

107 HUNG, L. (1975). **Annotated bibliography on asparagus (*Asparagus officinalis* L.).** (Department of Horticulture, National Taiwan University, Taipei, Taiwan). 547 pp.

Approximately 2,400 different references on *Asparagus officinalis* are covered in this bibliography. A small number of references also refer to *A. asparagoides*.

108 HUSSEY, B.M.J. (1993). **Naturalised plants on the southern slopes of the western end of the Helena Valley, Western Australia.** *Western Australian Naturalist* 19 (3), 219-240.

Asparagus asparagoides and *A. officinalis* are recorded as naturalised on the southern side of the Helena Valley where it cuts through the Darling Escarpment in Western Australia.

109 HUSSEY, B.M.J. & WALLACE, K.J. (1993). **Managing your bushland.** (Department of Conservation and Land Management, Como, Western Australia). 196 pp.

A plan for management of a weed using *Asparagus asparagoides* as an example is given on page 190.

110 HUXLEY, A. (1992). **The New Royal Horticultural Society dictionary of gardening** Volume I. (Macmillan Press, London). 815 pp.

Asparagus species are treated on pages 255 to 257 including *A. asparagoides* which is briefly described. One variety, *Myrtifolius*, is mentioned.

111 ITERSON VAN, G. (1955). **Some examples of unusual orientation of vascular strands in dorsiventral leaves.** *Acta Botanica Neerlandica* 4 (3), 380-397.

The phloem strands of cladodes of *Asparagus asparagoides* were found to be situated above the xylem strands, in contrast to the arrangement of vascular tissue in most plants.

112 JESSOP, J.P. (1966). **The genus *Asparagus* in southern Africa.** *Bothalia* 9 (1), 31-96.

This revision of the genus *Asparagus* from southern Africa includes 40 species and 4 varieties. The taxa are described, and their synonymy, taxonomy, distribution and habitats are also discussed. *Asparagus asparagoides* is treated on pages 81 to 84, including a figure showing a scattergram of cladode length and breadth.

113 JESSOP, J.P. & TOELKEN, H.R. (editors) (1986). **Flora of South Australia. Part IV. Alismataceae - Orchidaceae.** (South Australian Government Printing Division, Adelaide, South Australia). 2248 pp.

A description and distribution of *Myrsiphyllum asparagoides* and *M. declinatum* in South Australia are given on pages 1763 - 1764.

114 JUSAITIS, M. (1993). **Conservation studies on four endangered plants from Kangaroo Island, South Australia.** (Black Hill Flora Centre, Athelstone, South Australia). 57 pp.

Myrsiphyllum asparagoides is found associated with the endangered plant species, *Pomaderris halmaturina* (Rhamnaceae), and could threaten this species in the future (pages 35 - 36).

115 JUSAITIS, M. & SORENSEN, B. (1994). **Conservation studies on endangered plant species from South Australia's agricultural regions.** (Black Hill Flora Centre, Athelstone, South Australia). 54 pp.

The endangered plant, *Pterostylis arenicola* (Orchidaceae), found in a State Flora Reserve, South Australia, is threatened by invasion of *Myrsiphyllum asparagoides* and *Avena* species. An experiment comparing weeded plots with controls is described.

116 KAUSMANN, B. (1942). **Histogenetische Untersuchungen an Flachsprossen** <Histogenetic investigations on cladophylls>. *Botanisches Archiv* 43, 531-535.

Cladode development in *Myrsiphyllum asparagoides* and *Semele androgyna* are investigated.

117 KEIGHERY, B.J., KEIGHERY, G.J. & GIBSON, N. (1995). **Floristics of reserves and bushland areas of the Perth Region (System 6). Part X: Floristics of Lowlands.** (Wildflower Society of WA (Inc.), Nedlands, Western Australia). 45 pp.

Myrsiphyllum asparagoides is mentioned as a significant weed (page 14) occurring in *Eucalyptus rudis* forest to woodland (page 36).

118 KEIGHERY, G. (1995). **Appendix 2. An annotated list of the naturalised vascular plants of Western Australia 1994.** In *Invasive Weeds & Regenerating Ecosystems in Western Australia*, editor G. Burke, July 1994, Murdoch, Western Australia. pp. 71-101. (Murdoch University, Western Australia).

Asparagus officinalis, *Myrsiphyllum asparagoides*, *M. declinatum* and *Protasparagus densiflorus* are included in a list, with annotations, of the naturalised flora of Western Australia.

119 KEIGHERY, G.J. (1989). ***Banksia* woodland weeds.** *Journal of the Royal Society of Western Australia* 71 (4), 111-112.

Myrsiphyllum asparagoides and *M. declinatum* are recorded as naturalised in Swan Coastal Plain *Banksia* woodlands, Western Australia. Both species invade the microhabitat of deep litter under trees.

120 KEIGHERY, G.J. (1991). **Environmental weeds of Western Australia.** *Kowari* 2, 180-188.

This review lists *Myrsiphyllum asparagoides* as one of 458 taxa recorded from conservation lands and one of the 40 significant environmental weeds in Western Australia. The weed is widespread on calcareous soils. Severe infestations are noted for Yanchep National Park, Kings Park and near Hopetoun.

121 KEIGHERY, G.J. (1991). **Floristics of System Six reserves and bushland III. Flora list of Blackwell Reach Reserve.** In *Floristics of reserves and bushland areas of the Perth region (System 6). Parts II-IV*, G.J. Keighery and B.J. Keighery, pp. 23-32. (Wildflower Society of WA (Inc.), Nedlands, Western Australia).

Myrsiphyllum asparagoides is present along cliff edges, in Tuart woodland and disturbed areas of Blackwell Reach Reserve, Western Australia.

122 KEIGHERY, G.J. (1993). **Weeds of Western Australia's west coast offshore islands.** In 10th Australian Weeds Conference and 14th Asian Pacific Weed Science Society Conference, 6 - 10 September, 1993, Brisbane, Queensland. pp. 167-171. (Weed Science Society, Brisbane, Queensland).

Myrsiphyllum asparagoides is listed as one of the most serious environmental weeds of Western Australia's west coast offshore islands. It is present on Garden Island.

123 KEIGHERY, G.J. (1996). **Native, naturalized and cultivated Asparagaceae in Western Australia.** *Plant Protection Quarterly* 11 (2), 49-50.

The Asparagaceae consists of one large variable genus, *Asparagus* with two subgenera, *Asparagus* and *Myrsiphyllum*. The bridal creeper, which is widely naturalized in Western Australia, is *Asparagus asparagoides* (L.) W. Wight. The bridal veil, a potentially serious weed in the same State, is *Asparagus declinatus* L. Since there are over 100 species of wild *Asparagus* in climatically similar regions to southern Western Australia, the importation and cultivation of this invasive genus should be discouraged. [Author's abstract].

124 KEIGHERY, G.J., HARVEY, J. & KEIGHERY, B.J. (1990). **Vegetation and flora of Bold Park, Perth.** *Western Australian Naturalist* 18 (4/5), 100-122.

Asparagus asparagoides is listed as present in tuart, banksia, heath, wattle and limestone heath vegetation types in Bold Park, an urban bushland remnant in Perth, Western Australia.

125 KERN, L. (1992). **Bridal creeper (*Myrsiphyllum asparagoides*).** *Indigenotes* 5 (6), 13.

Myrsiphyllum asparagoides is described and control options are summarised.

126 KIRKPATRICK, J.B. (1974). **Plant invasion and extinction in a suburban coastal reserve.** *Australian*

Geographical Studies 12, 107-118.

Asparagus asparagoides is listed as absent in 1911 and present in 1971 in the Sandringham Foreshore Reserve, Victoria.

127 KLEINJAN, C.A. & SCOTT, J.K. (1990).

Preliminary observations on the natural enemies of southern African Asparagaceae. In Proceedings of the Ninth Australian Weeds Conference, editor J.W. Heap, 6 - 10 August, 1990, Adelaide, South Australia. p. 479. (Crop Science Society of South Australia, Adelaide, South Australia).

Preliminary observations on *Myrsiphyllum asparagoides* and *Protasparagus* species in South Africa revealed potential biological control agents.

128 KLOOT, P.M. (1986). **Checklist of the introduced species naturalised in South Australia.** Department of Agriculture, South Australia. Technical Paper 14, 111.

Asparagus asparagoides, *A. crispus* [= *A. declinatus*], *A. officinalis*, and *A. setaceus* are listed as naturalised flora in South Australia. Information on the first record, date of establishment (1871 and 1937 for *A. asparagoides*), distribution and information source are given.

129 KRAUSE, K. (1930). **Stemonaceae, Liliaceae.** In Die Naturlichen Pflanzenfamilien, Volume 15a. editors A. Engler and K. Prantl, pp. 227-380. (Verlag Von Wilhelm Engelmann, Leipzig).

Elachanthera [based on *E. sewelliae* F. Muell. = *Asparagus asparagoides*] is treated as a subgenus of *Luzuriaga* (page 379). The Asparagaceae are examined on pages 362 - 365.

130 KUNTH, C.S. (1850). **Enumeratio plantarum Volume V. Enumeratio Asparaginaerum, etc.** (J.G. Cottae, Stuttgart). 300 pp.

Myrsiphyllum Willd. and *M. asparagoides* are described on page 105.

131 LANGE, R.T. & REYNOLDS, T. (1981). **Halo-effects in native vegetation.** *Transactions of the Royal Society of South Australia* 105, 213-214.

Asparagus asparagoides was positively associated with small clumps, but not separate individuals of *Exocarpus cupressiformis*. It is suggested that native plants able to suppress weeds should be evaluated in revegetation projects.

132 LAZARIDES, M. & HINCE, B. (editors) (1993). **CSIRO handbook of economic plants of Australia.** (CSIRO Publications, East Melbourne, Victoria). 322 pp.

Smilax Asparagus is given as the common name of *Myrsiphyllum asparagoides* in Australia. Notes are included on the use, life form and duration of the plant. A map shows the Australian States where the plant is found.

133 LEAMAN, G. (1993). **Bridal creeper control.** *Indigenotes* 6, 4-5.

Myrsiphyllum asparagoides was first recognised as a problem on nature reserves in the Katanning district, Western Australia, in 1987. The plant is common along roadsides, occurs on 12 nature reserves, and is of concern due to the high soil and nature conservation values of remnant bushland. Herbicide trials using glyphosate are described. In 1989 a 5 year control program commenced. Small infestations have been eradicated from 2 reserves. Two severe infestations are contained and moderate infestations should be controlled by 1993. The results show the value of a planned approach, even with limited resources. A 10 year time frame is proposed for eventual control of the weed.

134 LEWIS, G.D. & SHOEMAKER, P.B. (1964). **Resistance of *Asparagus* species to *Fusarium oxysporum* f. *asparagi*.** *Plant Disease Reporter* 48 (5), 364-365.

Asparagus asparagoides, and three commercial varieties of *A. officinalis* were highly susceptible to the root rot of asparagus caused by *Fusarium oxysporum* f. *asparagi*. *Asparagus sprengeri* [= *A. densiflorus*] was immune to the fungus.

135 LEWIS, S.A. (1991). **The conservation and management of roadside vegetation in South Australia.** In Nature conservation 2: the role of corridors, editors D.A. Saunders and R.J. Hobbs, pp. 313-318. (Surrey Beatty & Sons Pty Limited, Chipping Norton, New South Wales).

Roadside vegetation management issues, strategies and challenges are reviewed. *Myrsiphyllum asparagoides* is specifically identified as a threat to roadside vegetation and National Parks in South Australia.

136 LINNAEUS, C. (1957). **Species plantarum: a facsimile of the first edition 1753** Volume 1. (The Ray Society, London). 560 pp.

Medeola asparagoides [= *Asparagus asparagoides*] is listed and briefly described on page 339.

137 LITTLELY, T. (1992). **The Inman Valley Wildlife Corridor, South Australia. - establishment & management guidelines.** (Conservation Council of SA Inc., Adelaide, South Australia). [65] pp.

Bridal creeper (*Asparagus asparagoides*) is considered the biggest threat to vegetation along Inman Valley Wildlife Corridor and other locations on Fleurieu Peninsula, South Australia. An example is given of an area of approximately 10 acres where one third of the native vegetation has lost 85% of its native herbs to bridal creeper. A map on page 29 shows the extent of bridal creeper infestation in relation to streams, tree cover and native vegetation at the Corridor site. Part of the map is shown in greater detail

in Appendix 6 and gives the location of a spraying program against bridal creeper. The herbicides, metsulfuron methyl and glyphosate with the addition of liquid ammonium sulphate, are recommended for control of bridal creeper in preference to digging which is only suitable in areas of light infestation.

138 LOYN, R.H. & FRENCH, K. (1991). **Birds and environmental weeds in south-eastern Australia.**

Plant Protection Quarterly 6 (3), 137-149.

Interactions between birds and exotic plants in Australia are reviewed. Literature records of birds that eat *Asparagus asparagoides* fruit as well as other exotic species, are listed.

139 MACFARLANE, T.D. (1987). **Family 127 Asparagaceae.** In Flora of the Perth Region, Volume Two. N.G. Marchant, J.R. Wheeler, B.L. Rye, E.M. Bennett, N.S. Lander and T.D. Macfarlane, pp. 736-737. (Western Australian Herbarium, Department of Agriculture, Perth, Western Australia).

The flora describes and gives the distribution of the genus *Asparagus* and the species *A. asparagoides* and *A. crispus* [= *A. declinatus*].

140 MAGUIRE, A. (1995). **Regional perspective. Kangaroo Island South Australia.** In Weeds of Conservation Concern: Seminar and workshop papers, editors D. Cooke and J. Choate, 5 - 6 April, 1995, Adelaide, South Australia. pp. 59-65. (Department of Environment and Natural Resources, Adelaide, South Australia).

Bridal creeper (*Asparagus asparagoides*) is considered the worst environmental weed on Kangaroo Island, South Australia, having the highest frequency of occurrence; being present in 7 of 18 reserves. Bridal vane (*Myrsiphyllum declinatum*) is present in 2? of the 18 reserves. Eight native plant species are listed as threatened by bridal creeper. The spread and persistence of both weeds are attributed to the "leaching and spread" of superphosphate into roadside vegetation.

141 MALCOMBER, S.T. & SEBSEBE, D. (1993). **The status of *Protasparagus* and *Myrsiphyllum* in the Asparagaceae.** *Kew Bulletin* 48 (1), 63-78.

The history of generic names in the Asparagaceae is presented with an investigation into generic limits based on an examination of 10 species of *Myrsiphyllum*, 29 species of *Protasparagus* and 51 species of *Asparagus*. Characteristics examined were the presence or absence of spines, connivent perianth segments and connivent filaments; seed shape, seed and testa morphological types, sexuality of flowers, number of ovules per locule, chromosome number and inflorescence structure. The conclusions were that the Asparagaceae contains one genus, *Asparagus* and two subgenera, *Myrsiphyllum* (with connivent filaments) and *Asparagus* (with spreading filaments).

142 MARCHANT, N. (1996). **Invited editorial:**

bridal creeper symposium. *Plant Protection Quarterly* 11 (2), 46.

The symposium on *Asparagus asparagoides* edited by Pigott *et al.* (1996) and which appears in *Plant Protection Quarterly* vol. 11 (2) is introduced. *Asparagus asparagoides* is one of the most prominent weeds of Western Australia. Points emphasised were the need for weed taxonomy, communication and public education on the threat of weed invasion.

143 MASON, H. (illustrator) (1972). **Western cape sandveld flowers.** (C. Struik (Pty) Ltd, Cape Town, South Africa). 203 pp.

On pages 40 and 41, *Asparagus asparagoides* and *A. crispus* [= *A. declinatus*] are briefly described, the South African distributions are summarised and both plants are illustrated in colour.

144 MATHEW, B. (1981). **P.J. Redouté Lilies and related flowers.** (Michael Joseph Ltd, London). 240 pp.

Page 82 gives notes on the taxonomy and identification of *Asparagus asparagoides*. The plant is illustrated and labelled *Medeola Asparagoides*. On page 54 are notes on *Asparagus maritimus*, followed by an illustration.

145 MCARTHUR, W.M. (1956). **Plant ecology of the coastal islands near Fremantle, W.A.** *Journal of the Royal Society of Western Australia* 40, 46-64.

The plant communities of Carnac, Garden and Rottnest Islands, major coastal islands near Fremantle, Western Australia, are described and compared in relation to soils, climate and geomorphology. *Asparagus asparagoides* is listed only for Garden Island.

146 MCARTHUR, W.M. & BARTLE, G.A. (1981). **The landforms, soils and vegetation as a basis for management studies on Garden Island, Western Australia.** *CSIRO Land Resources Management Series* 7, 1-39.

The history, climate, geology and geomorphology, landforms and soils, and vegetation of Garden Island, Western Australia, are described. In some areas, the undergrowth of the plant community, *Acacia rostellifera* scrub, is dominated by the introduced species *Zantedeschia aethiopica* or *Asparagus asparagoides*. It is considered that these species and other introduced weeds are extending their range in competition with native flora. Both weeds are included in the flora list for the Island. The presence of weed species, including *A. asparagoides*, is indicated on a 1:15000 scale map that accompanies the paper.

147 MCQUINN, D.J. (1994). **Chemical control of bridal creeper in South Australia. Results of field trials on Yorke Peninsula and Upper S.E.** In *Managing Weeds for Landcare 1994: a workshop on Protecting our Land from Invading Weeds*, compiler

R.J. Carter, 12 March, 1994, Adelaide, South Australia. (Animal and Plant Control Commission, Adelaide, South Australia).

Timing and rates of herbicide application were assessed in trials using metsulfuron methyl compared with glyphosate. Metsulfuron methyl at 5 gm/100L gave 85 - 95% reduction of *Asparagus asparagoides* 12 months after treatment. Higher rates were not more effective and the timing of lower rates was critical and minimised soil residual activity. The benefits of surfactants were compared. No effect on native vegetation was observed, however further investigation is required. Follow up spraying after two years is suggested to allow for seedling emergence. Metsulfuron methyl was registered for control of *A. asparagoides* in South Australia in 1993 at the rate of 5 g/100L [see Parsons 1995].

148 MENDOZA, E. (1942). **Las especies de *Asparagus* cultivadas en la Argentina** <Species of *Asparagus* cultivated in Argentina>. *Darwiniana* 4 (2-3), 311-323.

The cultivated species of *Asparagus* in Argentina are described and a key given to species. Species listed are *A. officinalis*, *A. plumosus*, *A. cooperi*, *A. scoparius*, *A. retrofractus*, *A. sprengeri* [= *A. densifolius*], *A. falcatus* and *A. asparagoides*. The latter species is much appreciated in floriculture.

149 MILVAIN, H.J. (1995). **Herbicide control of noxious weeds 1995: a guide to noxious weed control in non-crop situations**. (New South Wales Agriculture, Yanko, New South Wales). 48 pp.

Glyphosate is listed as a herbicide for *Myrsiphyllum asparagoides*, *Protasparagus aethiopicus* [= *Asparagus densiflorus*] and *P. plumosus*.

150 MOORE, S., CAVANA, M., GILLEN, K., HART, C., HOPPER, S., ORR, K. & SCHMIDT, W. (1991). **Fitzgerald River National Park Management Plan 1991 - 2001**. *Department of Conservation and Land Management Plan* 15, 1-133.

Myrsiphyllum asparagoides is referred to in section 9.4 on pages 65 - 66 as a weed likely to spread into natural areas. The plant is recorded from the river flats of the Gairdner River around Quaalup and Marningerup, Western Australia.

151 MUELLER VON, F.J.H. (1886). **Descriptions of new Australian plants**. *Victorian Naturalist* 3, 108-109.

The new genus and species, *Elachanthera sewelliae* [= *Asparagus asparagoides*] is described from a specimen collected at Nickol Bay, Western Australia [see Burbidge 1963].

152 MULHAM, W.E. & JONES, D.E. (1981). **Vascular plants of the riverine plain of New South Wales - supplementary list**. *Telopea* 2 (2), 197-213.

Asparagus asparagoides is mentioned on page 202 as naturalised in several localities in the southern districts of New South Wales.

153 MULVANEY, M.J. (1991). **Far from the garden path: an identikit picture of woody ornamental plants invading south-eastern Australian bushland**. Unpublished PhD Thesis. Australian National University, Canberra.

Asparagus asparagoides, *A. crispus* [= *A. declinatus*], *A. densiflorus*, *A. officinalis* and *A. setaceus* are included among the species assessed. The earliest record of *A. asparagoides* is in an 1857 garden catalogue. This species and other *Asparagus* species are recorded in many later catalogues. A score of invasive potential is calculated for each species.

154 OBERMEYER, A.A. (1984). **Revision of the genus *Myrsiphyllum* Willd.** *Bothalia* 15 (1 & 2), 77-88.

The genus *Myrsiphyllum*, including twelve species, is revised and includes a key to species. Genus and species descriptions including the new species *M. alopecurum* are given. The section on *M. asparagoides* includes references to previous descriptions, physical description, distribution in southern Africa and comments on the history and spread of the plant. Illustrations are given of the seed coat (SEM photographs), phylloclade form, Tilli's Catalogue Horti Pisani frontispiece and figure of *M. asparagoides* (the type specimen) [see Tilli 1723], and a distribution map.

155 OBERMEYER, A.A. (1985). **Asparagaceae: the genus *Protasparagus* in southern Africa**. *Bothalia* 15 (3 & 4), 548-549.

Notes on the history of Asparagaceae species from southern Africa are given. The genus *Protasparagus* is divided into two subgenera, *Protasparagus* and *Africani*. A brief description and notes on horticultural and other uses are given. The distribution of *P. racemosus* and *Myrsiphyllum asparagoides* from Africa to Australia via India is attributed to dispersal of seeds by birds.

156 OBERMEYER, A.A. (1992). **2. *Myrsiphyllum***. *Flora of South Africa* 5 (3), 71-82.

The genus *Myrsiphyllum* is described and a key to the 12 species is followed by a description and distribution map of each species. *Myrsiphyllum asparagoides* is recorded from southern Africa, Namibia and north to tropical Africa. It was introduced into England in 1702 and cultivated in Italy in 1723.

157 OVERTON, B. (1989). **Control methods of bridle creeper**. *South Australian Naturalist* 63 (3), 91-93.

Asparagus asparagoides is recorded as a pest plant in Western Australia, Victoria, New South Wales and in 8 regions in South Australia. An association of *A. asparagoides* with sandy soils, not clay or laterite

soils, is noted for Kangaroo Island, South Australia. Established *A. asparagoides* destroy understorey plants by forming a blanket of tubers. Observations on the weed's biology are presented along with the weed's pest (noxious) status. Control methods proposed are slashing or mowing the foliage, digging up the root systems and herbicide application using glyphosate.

158 PARSONS, J.M. (editor) (1995). **Australian weed control handbook**. 10th ed. (Inkata Press, Melbourne, Victoria). 560 pp.

Brush-off® (600 g/kg metsulfuron methyl) is registered for use against *Myrsiphyllum asparagoides* in South Australia. Rates and recommendations for application methods and timing (mid June to late August) are provided on pages 152 - 156.

159 PARSONS, W.T. & CUTHBERTSON, E.G. (1992). **Noxious weeds of Australia**. (Inkata Press, Sydney). 692 pp.

The Family Asparagaceae, including *Myrsiphyllum asparagoides*, *Protasparagus aethiopicus* [= *Asparagus densiflorus*] and *P. plumosus* are reviewed on pages 44 - 50. Useful plants and other weeds in the Asparagaceae are also listed. The first part of the sections on *M. asparagoides*, *P. aethiopicus* and *P. plumosus* includes a listing of synonyms, alternative names, noxious categories and a distribution map of the weed in Australia. Following are an explanation of the origins of the name, the habitats where the plant is found, a description and information on the life cycle, geographical origin and distribution, dispersal, weedy characteristics, control methods and a list of references for further reading. Photographs illustrate the growth form of each species and the underground tubers of *M. asparagoides*.

160 PATE, J.S. & DIXON, K.W. (1982). **Tuberous, cormous and bulbous plants: biology of an adaptive strategy in Western Australia**. (University of Western Australia, Nedlands, Western Australia). 268 pp.

Asparagus asparagoides is one of the plants in Western Australia with fleshy underground storage organs. The form of the tubers is shown on page 144.

161 PATERSON-JONES, J.C. (1983). **The polyisoprene content of some South African plants**. *Biomass* 3, 225-234.

Asparagus asparagoides was assayed and determined not to be a source of natural rubber.

162 PEN, L. (1994). **Weeds in wetlands**. In *Weeding Western Australia; a forum for land managers*, compiler C. Drake, 29 March 1994, South Perth, Western Australia. pp. 11-22. (Australian Association for Environmental Education (WA), Claremont, Western Australia).

Myrsiphyllum asparagoides is included among major weed species of wetlands.

163 PEN, L.J. (1983). **Peripheral vegetation of the Swan and Canning Estuaries 1981**. *Department of Conservation & Environment Western Australia, Swan River Management Authority Bulletin* 113.

Asparagus asparagoides is listed on page 43 as present in two communities of peripheral vegetation on the Swan and Canning Estuaries, Western Australia.

164 PFEIFFER, L.K.G. (1874). **Nomenclator botanicus** Volume 2 (1). 2053 pp.

Myrsiphyllum is referred to on page 398. *Medeola asparagoides* is designated the lectotype of the genus [see Chapman 1991].

165 PHELOUNG, P.C. & SCOTT, J.K. (1996). **Climate-based prediction of *Asparagus asparagoides* and *A. declinatus* distribution in Western Australia**. *Plant Protection Quarterly* 11 (2), 51-53.

The potential distributions of *Asparagus asparagoides* and *A. declinatus* in the south-west of Western Australia are predicted from the climate of their known distribution in South Africa and elsewhere in Australia. Both species show the potential to considerably expand their range in the south-west. Recommendations are made that both weeds be declared noxious and that an eradication program be undertaken against outlying northern populations of *A. asparagoides* and the two known infestations of *A. declinatus*. [Author's abstract].

166 PICKARD, J. (1984). **Exotic plants on Lord Howe Island: distribution in space and time, 1853-1981**. *Journal of Biogeography* 11, 181-208.

Asparagus asparagoides, *A. densiflorus* and *A. setaceus* were first recorded on Lord Howe Island in 1970, 1970 and 1920 respectively.

167 PIGOTT, J.P. & FARRELL, P. (1996). **Factors affecting the distribution of bridal creeper (*Asparagus asparagoides*) in the lower south-west of Western Australia**. *Plant Protection Quarterly* 11 (2), 54-56.

Bridal creeper, was surveyed on roadsides throughout the lower south-west of Western Australia, and based on previous records was found to be spreading. Bridal creeper was found to be associated with surface hydrology in the Cape Naturaliste region and older settlements but not towns. More common in various types of *Eucalyptus* woodland than other vegetation types, bridal creeper poses a threat to remnant vegetation in national parks and reserves of the region. [Author's abstract].

168 PIGOTT, J.P., LAMONT, D. & KEIGHERY, G. (editors) (1996). **Bridal creeper symposium. Proceedings of a symposium held at Department of Conservation and Land Management (CALM) in Como on October 24, 1995**. *Plant Protection Quarterly* 11 (2), 46-75.

This symposium of 18 papers covers many aspects

of the biology and control of *Asparagus asparagoides*. [Abstracts of these papers can be seen on the Bridal Creeper Symposium World Wide Web site: URL <http://www.merriweb.cam/patrickp/bc-symp.htm>].

169 PIGOTT, J.P. & LUND, D.J. (1996). **Improved mapping and useability of weed location data recorded by a GPS - distribution of bridal creeper (*Asparagus asparagoides*) in the Wickepin Shire of Western Australia.** *Plant Protection Quarterly* 11 (2), 57-58.

A re-assessment of bridal creeper (*Asparagus asparagoides* (L.) W. Wight) distribution in the Wickepin Shire of Western Australia, found comparisons between surveys conducted in 1993 and 1995 impractical because of the different techniques used. Deficiencies in present weed location recording and subsequent data mapping are greatly enhanced by the use of GPS units in the field. [Author's abstract].

170 PIKE, D. (1996). **Boomerang Gorge bridal creeper project.** *Plant Protection Quarterly* 11 (2), 72-73.

Asparagus asparagoides appears to have spread 5.5 km from Boomerang Gorge, Yanchep National Park since 1981. The control of *A. asparagoides* by manual removal and the involvement of community groups in control efforts is described.

171 PIZZEY, G. (1982). **It's small, it's attractive...and it's a menace - worse than boneseed?** *The Herald*, 3rd June.

The problem of invasive *Asparagus asparagoides* is described. Fruits are taken by grey-breasted white-eyes that probably disperse seed. The herbicide amitrole has provided some control on the Mornington Peninsula, Victoria.

172 PLATT, S. (1993). **Environmental weeds - the little known curse.** *Land for Wildlife News Supplement* 1 (10), 1-4.

Methods for controlling environmental weeds are summarised. *Myrsiphyllum asparagoides* is illustrated in a photo and notes are provided on the weed.

173 PRITCHARD, G.H. (1991). **Control of bridal creeper with herbicides.** *Plant Protection Quarterly* 6 (3), 126.

Herbicide trials to control *Myrsiphyllum asparagoides* were carried out in the Wail State Forest, Victoria during 1989. Most effective were metsulfuron methyl plus surfactant, glyphosate plus surfactant, glyphosate plus metsulfuron methyl, and triclopyr/picloram. Other herbicides trialed were 2,4-D/picloram, amitrole, fluroxypyr and MCPA/diflufenican. Some trials included various additives (adjuvants or surfactants). In 1990, herbicide trials were carried out at Point Nepean. Control using glyphosate was not improved with the addition of a surfactant, but was better than triclopyr or metsulfuron

methyl with surfactant. During 1989 - 1991, herbicide trials were conducted in South Australia using metsulfuron methyl and glyphosate [see McQuinn 1994]. Glasshouse trials with 18 herbicides indicate that *M. asparagoides* is more sensitive to sulfonylurea herbicides than glyphosate.

174 PRITCHARD, G.H. (1995). **Review of existing control measures for bridal creeper.** *In Weeds of Conservation Concern: Seminar and workshop papers*, editors D. Cooke and J. Choate, 5 - 6 April, 1995, Adelaide, South Australia. pp. 50-57. (Department of Environment and Natural Resources, Adelaide, South Australia).

The use of herbicides for the control of *Asparagus asparagoides* is reviewed. Over 30 herbicides were evaluated in glasshouse trials with glyphosate and metsulfuron methyl being used in the field. The latter two herbicides were trialed in a range of concentrations, mixtures, and with the addition of surfactants. Follow up treatments in subsequent years and the effects of spray treatments on non-target plant species are discussed.

175 RAYMOND, K. (1993). **The ecology of *Myrsiphyllum asparagoides*, an environmental weed in south-eastern Australia.** *In 10th Australian Weeds Conference and 14th Asian Pacific Weed Science Society Conference*, 6 - 10 September, 1995, Brisbane, Australia. p. 143. (Weed Society of Queensland, Brisbane, Queensland).

This poster abstract describes the population biology of *Myrsiphyllum asparagoides* at Point Nepean National Park, Victoria.

176 RAYMOND, K. (1994). **The ecology of bridal creeper in southeastern Australia.** *In Managing Weeds for Landcare 1994: a workshop on Protecting our Land from Invading Weeds*, compiler R.J. Carter, 12 March, 1994, Adelaide, South Australia. p. 4. (Animal and Plant Control Commission, Adelaide, South Australia).

The growth, dispersal and seed dynamics of *Myrsiphyllum asparagoides* were studied at Point Nepean National Park, Victoria, since 1992. The time of stem emergence, density, biomass, and senescence, tuber production and biomass, and seed ripening and removal were documented. At least 87% of the plant's biomass was below ground. Berries contained 1-9 seeds and were dispersed mainly by silvereyes and blackbirds. Seeds buried at 2 and 5 cm showed 50 - 60% germination and lived less than a year while less than 15% of surface seed germinated and 53% survived one year.

177 RAYMOND, K. (1995). **The autecology of bridal creeper - how does it work?** *In Weeds of Conservation Concern: Seminar and workshop papers*, editors D. Cooke and J. Choate, 5 - 6 April, 1995, Adelaide, South Australia. pp. 17-21. (Department of

Environment and Natural Resources, South Australia).

Bridal creeper, *Myrsiphyllum asparagoides* (L.) Willd., is a serious environmental weed of southern Australia. Tuber-bearing rhizomes dominate below ground while above ground stems reach high densities and creep over existing vegetation. A variety of native and exotic birds disperse seeds to new sites. Supra-annual storage of seed within the soil is minimal; however, seed on the soil surface remain viable for up to 24 months. Soil disturbance or microenvironment do not appear to have large impacts on seed germination. Bridal creeper competes with native species for space and light, and probably alters the soil-litter environment. As such, it has the potential to deleteriously affect the regeneration of native species and, in turn, alter the communities which it invades. Effective biological control will require tuber-depleting organisms and defoliating agents as well as pre-dispersal fruit and seed predators.[Author's abstract].

178 RAYMOND, K. (1996). **The ecology of bridal creeper in south-eastern Australia.** *Plant Protection Quarterly* 11 (2), 47.

A summary is given of the ecology of *Asparagus asparagoides* based on Raymond (1995).

179 REID, C. (1993). **Asparagaceae.** *Memoirs of the Botanical Survey of South Africa* 62, 156-158.

The species of *Myrsiphyllum* and *Protasparagus* in southern Africa are listed with synonymy, key references and distribution based on occurrence in political units/Provinces.

180 ROBERTSON, D. (1994). **The control of bridal creeper, *Myrsiphyllum asparagoides*, a serious environmental weed in the Wimmera River Catchment.** (Department of Conservation and Natural Resources, Victoria). 40 pp.

The literature on the description, habitat, life history, dispersal, infestations and control methods of *Myrsiphyllum asparagoides* are reviewed. The extent of infestations of *M. asparagoides* are described for the following areas in Victoria; Wimmera River, the Grampians National Park, Mount Arapiles Toon State Park, Lake Morea, Lake Hindmarsh, Glenlee Flora and Fauna Reserve, hardwood production areas, Natimuk Lake, Olivers Lake and Lake Wyn Wyn. A timetable is presented for *M. asparagoides* control in the Wimmera. The financial costs of control are assessed. The Wimmera area has approximately 9980 ha of *M. asparagoides*. Control (herbicides and labour) is estimated to cost \$236,470 in the first year and \$25,000 each year for up to 6 years.

181 ROBERTSON, E. (1983). **Watiparinga experience - weed control by persistent effort in an urban reserve.** In Proceedings of a Workshop on the Management of Weeds in Recreational Areas, Particularly Bushland and National Parks, editor G.M. Rowberry and P.M. Kloot, 1 - 3 November, 1983,

Adelaide, South Australia. pp. 84-88. (Department of Agriculture, Adelaide, South Australia).

Herbicide spraying is recommended for control of bridal creeper. Small patches can be grubbed to remove tubers. [Permission of the authors required before citing reference].

182 ROBERTSON, E. (1994). **The role of minimum disturbance in weed control in native vegetation.** In Managing Weeds for Landcare 1994: a workshop on Protecting our Land from Invading Weeds, compiler R.J. Carter, 12 March, 1994, Adelaide, South Australia. p. 12 (Animal and Plant Control Commission, Adelaide, South Australia).

This overview of the role of minimum disturbance in weed control notes the presence of *Asparagus asparagoides* (among other weeds) on Watiparinga, a South Australian National Trust reserve, in 1974. By 1994 the Reserve had been nominated for the register of the National Estate because of the importance of indigenous vegetation. Herbicides are used to control *A. asparagoides*.

183 ROBERTSON, M. (1983). **Bridal creeper (*Asparagus asparagoides* (L.) Wight) in southern Australian bushland.** In Management of Weeds of Recreation Areas, Particularly Bushland and National Parks: Proceedings of a workshop, editors G.M. Rowberry and P.M. Kloot, 1 - 3 November, 1983, Adelaide, South Australia. pp. 19-23. (Department of Agriculture, Adelaide, South Australia).

The southern Australian distribution of *Asparagus asparagoides* is illustrated in a map and related to the five month growing season. The vegetative morphology and growth cycle are described. The foliage is annual and new stems arise each year from a perennial rhizome. Above ground parts senesce over summer with most below ground growth occurring over winter and spring. Flowering starts late August and seeds require after-ripening. Seedlings appear from late autumn. Birds are the principal means of seed dispersal. Control techniques suggested are slashing the foliage, digging up roots, and herbicides. Glyphosate was found to be an effective herbicide. [Permission of the authors required before citing reference].

184 ROBERTSON, M. (1994). **Stop bushland weeds: a guide to successful weeding in South Australia's bushland.** (Nature Conservation Society of South Australia, South Australia). 104 pp.

Myrsiphyllum asparagoides is referred to on pages 44 - 45. The plant is described and information is presented on where it grows, how it spreads and how to control the weed. The plant is illustrated on page 45 with indications of how to distinguish the weed from native climbers.

185 ROBINSON, K. (1990). **Developments in control techniques for environmental weeds.** In Control of Environmental Weeds: a second workshop

presented by the Weed Science Society of Victoria Inc. and the Department of Conservation and Environment, editor R. Adair, 12 November, 1990, Eltham, Victoria. pp. 12-14. (Weed Science Society of Victoria, Melbourne, Victoria).

Herbicide trials on *Myrsiphyllum asparagoides* found that six years may be necessary to exhaust the tubers. The most promising chemicals for control were glyphosate and metsulfuron methyl, the latter was recorded as leaching from trial plots. Native vegetation re-establishment was reported to be excellent after high rainfall. Mowing also reduced the amount of spray required.

186 RODD, A.N. & PICKARD, J. (1983). **Census of vascular flora of Lord Howe Island.** *Cunninghamia* 1 (2), 267-280.

Asparagus asparagoides, *A. densiflorus* and *A. setaceus* are listed on page 275 among the naturalised non-native species of Lord Howe Island.

187 SCHOMBURGK, R. [1871]. **Catalogue of the plants under cultivation in the Government Botanic Gardens, Adelaide, South Australia.** (Government Printer, Adelaide, South Australia). [unknown] pp.

First record of *Asparagus asparagoides* cultivated in South Australia. [Original not seen].

188 SCHRANK, C. (1982). **Bridal creeper trial.** *Pest Plants Commission South Australia Digest of News & Events* 13, 6-7.

Herbicide trials were undertaken to control *Asparagus asparagoides* in a citrus orchard, Winkie, South Australia. Bromacil, glyphosate, amitrole and 2, 2-DPA were trialed. Control was achieved with bromacil and glyphosate.

189 SCOTT, J.K. (1994). **Bridal creeper, three cornered jack and lesser jack: prospects for biological control.** In Fourth Biennial Animal and Plant Control Conference. Working papers, editor D.A. Cooke, 2 - 4 August, 1994, Loxton, South Australia. pp. 29-33. (Animal and Plant Control Commission, South Australia).

The literature on the distribution, biology and ecology of bridal creeper (*Myrsiphyllum asparagoides*) in Australia is reviewed. Progress towards the biological control of *M. asparagoides* will depend on resources and the biology of the agents concerned.

190 SCOTT, J.K. (1995). **Bridal creeper, *Myrsiphyllum asparagoides*. The past, future and relations.** In Weeds of Conservation Concern: Seminar and workshop papers, editors D. Cooke and J. Choate, 5 - 6 April, 1995, Adelaide, South Australia. pp. 11-15. (Department of Environment and Natural Resources, South Australia).

Bridal creeper, *Myrsiphyllum asparagoides*, has become a widespread environmental weed across southern Australia. The plant was introduced to

Australia for the florist trade and as a garden ornamental during the 1800s. The plant has become naturalised and widespread during the second half of the 1900s and the weed has the potential to spread both outside and within the current distribution. A biological control program against this weed will need to consider close relatives of the weed; for example, commercial asparagus and the native *Protasparagus racemosus*. Potential impact of biological control agents on common garden ornamental species in the genus *Protasparagus* will also need to be balanced against the potential these plants have to also become environmental weeds. [Author's abstract].

191 SCOTT, J.K. (1996). **History of bridal creeper.** *Plant Protection Quarterly* 11 (2), 47.

Bridal creeper (*Asparagus asparagoides* = *Myrsiphyllum asparagoides*) originates from South Africa and has been distributed around the world. It has undergone three phases during its history, as a botanical curiosity, as a fashion accessory and most recently as an environmental weed. This talk begins with an introduction to the plant, an outline of its history and concludes with a mathematical model of its spread since arriving in Western Australia. [Abstract only published, based partly on Scott 1995].

192 SCOTT, J.K. & DELFOSSE, E.S. (1992). **Southern African plants naturalized in Australia: a review of weed status and biological control potential.** *Plant Protection Quarterly* 7 (2), 70-80.

Myrsiphyllum asparagoides is included as a significant weed of conservation areas and identified as a priority target for biological control.

193 SCOTT, J.K. & KLEINJAN, C.A. (1991). **Bridal creeper (*Myrsiphyllum asparagoides*) in Australia and developments towards its biological control.** *Plant Protection Quarterly* 6 (3), 116-119.

The distribution, importance and control options for bridal creeper (*Myrsiphyllum asparagoides*) in Australia are reviewed. Bridal creeper is widespread in south-west Western Australia and has been recorded on 17 areas of public lands including nine National Parks. The weed is also present in nature conservation areas in South Australia and Victoria. The spread of bridal creeper in areas of native vegetation is regarded as a threat to nature conservation values. Consequently, bridal creeper has been approved as a target for biological control. Preliminary results are given of a survey of fauna and diseases attacking bridal creeper in its native habitat, southern Africa. Potential biological control agents include eurytomid seed wasps; larvae of fruit feeding Lepidoptera; a rust fungus, *Puccinia myrsiphylli*; a *Crioceris* sp. (Chrysomelidae), that eats new shoots and young leaves; a leaf-feeding cicadellid and an unidentified fly that galls shoot tips. [Author's abstract].

194 SCOTT, J.K. & PIGOTT, J.P. (1993).

Distribution of bridal creeper (*Myrsiphyllum asparagoides*) in Western Australia. In 10th Australian Weeds Conference and 14th Asian Pacific Weed Science Society Conference, 6 - 10 September, 1993, Brisbane, Australia. pp. 86-89. (Weed Society of Queensland, Queensland).

Bridal creeper (*Myrsiphyllum asparagoides*) is widespread in south-west Australia. The weed was found in over 90 roadside locations, recorded from 9 of 43 National Parks and is present in a third of south-west Shires including all coastal Shires between Perth and Esperance, Western Australia. A distribution map is given on page 87. The weed's distribution is often centred on old settlements and town sites. [Also appears as a poster abstract on page 144 of the same volume.]

195 SEABROOK, J. (1996). **A short story.** *Plant Protection Quarterly* 11 (2), 72.

It is proposed that *Asparagus asparagoides* is dispersed by honeyeaters and that the seeds are not viable after one year.

196 SELK, G. (1975). **An inventory of plants growing in Kings Park and Botanic Garden.** *Kings Park Research Notes* 4, 1-44.

Asparagus acutifolius, *A. asparagoides*, *A. crispus* [= *A. declinatus*], *A. medeoloides* [= *A. asparagoides*], *A. plumosus*, *A. sprengeri* [= *A. densiflorus*], and *A. verticillatus* are listed as growing in Kings Park and Botanic Gardens, Perth, Western Australia.

197 SMITH, V., BRIGGS, A., HALES, T., HERFORD, I. & ORR, K. (1989). **Yanchep National Park Management Plan 1989 - 1999.** *Department of Conservation and Land Management Plan* 14, 1-175.

Asparagus asparagoides is listed (on page 58) as a weed in Yanchep National Park Western Australia.

198 SORENSEN, B. & JUSAITIS, M. (1995). **The impact of bridal creeper on an endangered orchid.** In *Weeds of Conservation Concern: Seminar and workshop papers*, editors D. Cooke and J. Choate, 5 - 6 April, 1995, Adelaide, South Australia. pp. 27-31. (Department of Environment and Natural Resources, South Australia).

The impact of *Myrsiphyllum asparagoides* and its control on the endangered *Pterostylis arenicola* (sandhill green-hood orchid) was studied at Taillem Bend and Poltalloch, South Australia. Encroachment by the weed is a threat to the orchid. Both orchid and weed have a similar phenology which makes control of the weed difficult. Glyphosate was used in herbicide trials. Future work will use rope-wick applicators to apply glyphosate.

199 SOUTH AUSTRALIA ANIMAL AND PLANT CONTROL COMMISSION (1990). **Proclaimed plant notes. Bridal creeper (*Myrsiphyllum asparagoides*).**

pp. 2. (Animal and Plant Control Commission, Adelaide).

This pamphlet provides information on the description, distribution, ecology and control of the weed in South Australia.

200 SOUTH AUSTRALIA ANIMAL AND PLANT CONTROL COMMISSION (1992). **Report of the Animal and Plant Control Commission for the year ended 31 December 1992.** Animal and Plant Control Commission of South Australia, Adelaide, South Australia. 64 pp.

The cover photo of the report shows *Asparagus asparagoides* dominating the understorey below Murray pine, *Callitris preissii*, at Meningie, South Australia. A further photo on page 32 shows *A. asparagoides* on a roadside on Kangaroo Island, South Australia. It is noted that the Commission is funding a study of natural pests of *A. asparagoides* in South Africa. *Asparagus declinatus* is also recognised as an established threat on Kangaroo Island, Yorke Peninsula and Fleurieu Peninsula, South Australia.

201 SOUTH AUSTRALIA ANIMAL AND PLANT CONTROL COMMISSION (1994). **Report of the Animal and Plant Control Commission for the year ended 31 December 1994.** Animal and Plant Control Commission of South Australia, Adelaide, South Australia. 57 pp.

Myrsiphyllum asparagoides is referred to on page 20 of the report, mentioning Commission involvement in funding biological control studies. Progress with the research is summarised.

202 SOUTH AUSTRALIA NATIONAL PARKS AND WILDLIFE SERVICE (1983). **Cleland Conservation Park management plan Mount Lofty Ranges - South Australia.** (Department of Environment and Planning, Adelaide, South Australia). 141 pp.

Asparagus officinalis is the only Asparagaceae included in the flora list on page 68. Table XXII lists the major problem weeds (*Asparagus* spp. not mentioned) and table XXIII, page 76, includes *A. asparagoides* as a proclaimed pest plant present in the park.

203 STANSBURY, C.D. (1995). **A biogeography of bridal creeper, *Myrsiphyllum asparagoides*: a case study within Yanchep National Park.** Unpublished Honours Thesis. Edith Cowan University, Mt Lawley, Western Australia. 80 pp.

Asparagus asparagoides was mapped in Yanchep National Park, Western Australia. The weed preferred Tuart Woodland. Frugivorous birds found feeding on *A. asparagoides* included silvereye, purple swamphen, red wattlebird, Port Lincoln parrot and the common crow. Seasonal changes in tuber morphology were observed. Recommendations are made for options to manage the weed in the Park.

204 STANSBURY, C.D. (1996). **Observations of birds feeding on bridal creeper (*Asparagus asparagoides*) fruits within Yanchep National Park, Western Australia.** *Plant Protection Quarterly* 11 (2), 59-60.

This study identified birds feeding on bridal creeper fruits in Boomerang Gorge, Yanchep National Park. During the study, 24 of the known 92 land species that occur in the Park were sighted in the vicinity of Bridal Creeper infestations. Five species, the red wattlebird, purple swamphen, little crow, ringneck parrot and the silveryeye, were observed feeding on bridal creeper fruits. Observations of fruit removal and theory on seed dispersal by birds were used to identify possible dispersal systems that contribute to the current distribution of bridal creeper infestation in the park. [Author's abstract].

205 SWARBRICK, J.T. & SKARRATT, D.B. (1994). **The bushweed 2 database of environmental weeds in Australia.** (The University of Queensland Gatton College, Queensland). 646 pp.

Myrsiphyllum asparagoides is listed on page 646. The database includes information for this species on the scientific name, common name, family, origin, impact, distribution in Australia, habitats where present, managerial control, biological control, physical control and chemical control and bibliography.

206 SYMON, D. (1977). **Vegetation summary.** In Innes National Park: a survey conducted by the Nature Conservation Society of South Australia, editor M.R. Foale, pp. 14-32. (Nature Conservation Society South Australia, Underdale, South Australia).

Asparagus asparagoides is listed as present in the Innes National Park, South Australia.

207 THOMPSON, A.E. & HEPLER, P.R. (1956). **Summary of resistance and susceptibility to *Puccinia asparagi* DC. within the genus *Asparagus*.** *Plant Disease Reporter* 40 (2), 133-137.

Asparagus species were tested for susceptibility to the rust *Puccinia asparagi*. *Asparagus asparagoides* was resistant to the rust as were *A. plumosus*, *A. scandens* and *A. sprengeri* [= *A. densiflorus*]. *Asparagus acutifolius*, *A. maritimus*, *A. officinalis* and *A. scaber* were susceptible. The literature on similar tests is reviewed.

208 THUNBERG, C.P. (1794). **Prodromus plantarum capensium, quas in promontoria Bonae spei Africes, annis 1772-1775.** (Edman, Upsala). 89 pp.

Asparagus species are covered on pages 65 and 66. *Asparagus asparagoides* is referred to on page 66 as *A. medeoloides*.

209 TILLI, M.A. (1723). **Catalogus plantarum Horti Pisani.** (typis Regiae Celsitudinis, apud Tartinium et Franchium, Florence). 187 pp.

Figures 1 and 2 of table 12 show illustrations of *Myrsiphyllum asparagoides* that later became the type of the species. The frontispiece and table 12 are reproduced in Obermeyer (1984) page 82.

210 TWENTYMAN, J. (1990). **Impact of fire on environmental weeds.** In Control of Environmental Weeds: a second workshop presented by the Weed Science Society of Victoria Inc. and the Department of Conservation and Environment, editor R. Adair, 12 November, 1990, Eltham, Victoria. pp. 4-11. (Weed Science Society of Victoria, Melbourne, Victoria).

In a discussion on the impact of fire on environmental weeds, *Myrsiphyllum asparagoides* is noted as a facultative resprouter or fire resistant.

211 VALDÉS, B. (1980). **48. *Asparagus* L.** In Flora Europaea. Volume 5. Alismataceae to Orchidaceae (Monocotyledones), editors T.G. Tutin, V.H. Heywood, N.A. Burges, D.M. Moore, D.H. Valentine, S.M. Walters and D.A. Webb, pp. 71-73. (Cambridge University Press, Cambridge).

A brief description of *Asparagus asparagoides* is given. The weed is naturalised locally in southern Europe (Azores, Portugal and Sicily).

212 VICTORIA DEPARTMENT OF CONSERVATION AND ENVIRONMENT (1990). **Warrandyte State Park management plan.** (Department of Conservation and Environment, East Melbourne, Victoria). 191 pp.

Myrsiphyllum asparagoides is identified as a problem weed of riparian plant communities the Warrandyte State Park, Victoria. The management plan gives locations of the weed and proposes management actions for control.

213 VICTORIA DEPARTMENT OF CONSERVATION AND ENVIRONMENT (1991). **Lower Glenelg National Park management plan.** (Department of Conservation and Environment, East Melbourne, Victoria). 93 pp.

Isolated occurrences of *Myrsiphyllum asparagoides* are found in the Lower Glenelg National Park, Victoria.

214 VICTORIA DEPARTMENT OF CONSERVATION AND ENVIRONMENT (1991). **Mount Arapiles - Tooan State Park Mt Arapiles management unit management plan.** (Department of Conservation and Environment, East Melbourne, Victoria). 42 pp.

Bridal Veil Creeper [= ?*Asparagus asparagoides*] is the most severe introduced plant problem in the Mt Arapiles management unit, Mount Arapiles-Tooan State Park, Victoria.

215 VICTORIA DEPARTMENT OF CONSERVATION FORESTS AND LANDS (1989). **Point Nepean National Park management plan -**

Point Nepean section. (Department of Conservation, Forests and Lands, Melbourne, Victoria). 206 pp.

Asparagus asparagoides severely infests some sections of the Point Nepean National Park, Victoria. Control is recommended.

216 VICTORIA DEPARTMENT OF CONSERVATION & NATURAL RESOURCES (1996). **Environmental weed management survey.** (Department of Conservation & Natural Resources, East Melbourne, Victoria). 47 pp.

A questionnaire survey of Victorian community groups and individuals identified environmental weeds of concern. *Myrsiphyllum asparagoides* was ranked equal third in the number of responses, being mentioned 4 times.

217 VINES, J. (1996). **Volunteer involvement with the Boomerang Gorge bridal creeper project.** *Plant Protection Quarterly* 11 (2), 74-75.

The activities of volunteer groups formed to control *Asparagus asparagoides* in Yanchep National Park, Western Australia, are described.

218 WEIDENBACH, M. (1994). **Bridal creeper and *Myrsiphyllum declinatum*.** In *Managing Weeds for Landcare 1994: a workshop on Protecting our Land from Invading Weeds*, compiler R.J. Carter, 12 March, 1994, Adelaide, South Australia. p. 2. (Animal and Plant Control Commission, Adelaide, South Australia).

Naturalised *Myrsiphyllum asparagoides* was first noticed at Goolwa, South Australia in 1935 and dense infestations were observed in higher rainfall regions of South Australia by 1970. Naturalised *M. declinatum* was first noticed on Kangaroo Island, South Australia in 1954 where it now occurs along 40 road reserves in about 80 infestations. Infestations near Victor Harbour, South Australia were first recorded in 1966 and have increased in size. It is concluded that *M. declinatum* poses a significant threat to native vegetation and has yet to realise its potential distribution. A map on page 2 gives the distribution in South Australia.

219 WEIDENBACH, M. (1996). **Bridal creeper - a South Australian perspective.** *Plant Protection Quarterly* 11 (2), 48.

Methods used for *Asparagus asparagoides* control in South Australia include systemic herbicides with wetting agent and the addition of liquid fertilizer, organising, mapping, planning and priority setting. The roles of rabbit control, volunteers and fire management are discussed in relation to weed control.

220 WIGAN, A. & MALCOLM, I. (1989). **Report to Yorke Peninsula Roadside Vegetation Steering Group on roadside vegetation management plan for Yorke Peninsula.** (Yorke Peninsula Roadside Vegetation Steering Group, Adelaide, South Australia). 126 pp.

The report contains maps of the roads in Bute,

Northern Yorke Peninsula, Central Yorke Peninsula, Milaton, Yorketown, and Warooka District Councils in South Australia with verges requiring *Asparagus asparagoides* control and monitoring. Significant weeds identified included *Lycium ferocissimum*, *A. asparagoides*, introduced grasses, and clover. Recommendations are made for weed control using herbicides.

221 WIGHT, W.F. (collaborator) (1909). [No title given]. In *The century dictionary and cyclopedia: a work of universal reference in all departments of knowledge*, Volume XI. editor B.E. Smith, pp. 845. (The Times Book Club, London).

The dictionary lists *Myrsiphyllum* on page 845. Myrtle plus leaf is given as the name derivation. *Myrsiphyllum* is described as a section of *Asparagus* containing *Asparagus asparagoides*.

222 WILLDENOW, C.L. (1808). **Nähere Bestimmung einiger Liliengewächse, besonders aber derjenigen, die zur sechsten Klasse und dritten Ordnung des Linnéschen Systems gehören** <Further determination of a few Lily plants, particularly that which belongs to the sixth Class and thirty putting in order the Linnean System>. *Magazin für die Neuesten Entdeckungen in der Gesammten Naturkunde* 2, 14-30.

The genus *Myrsiphyllum* is first described and separated from *Medeola*. *Myrsiphyllum asparagoides* and *M. angustifolium* [= *Asparagus asparagoides*] are placed in the new genus. A type for the new genus was not designated.

223 WILLIS, J.H. (1962). **A handbook to plants in Victoria: ferns, conifers and monocotyledons** Volume 1. (Melbourne University Press, Melbourne, Victoria). 448 pp.

Asparagus asparagoides is referred to on page 317. In Victoria the plant is established in a few coastal habitats such as Torquay, Queenscliff, St. Leonards, Frankston, Deep Creek at Bulla and Lakes Entrance. *A. plumosus* is mentioned as a plant of horticulture that persists in old gardens.

224 YOUNG, E. (1995). **Report on a telephone survey of bridal creeper, *Myrsiphyllum asparagoides*, in heritage agreement areas in South Australia.** In *Weeds of Conservation Concern: Seminar and workshop papers*, editors D. Cooke and J. Choate, 5 - 6 April, 1995, Adelaide, South Australia. pp. 70-78. (Department of Environment and Natural Resources, South Australia).

A telephone questionnaire determined the presence of bridal creeper (*Myrsiphyllum asparagoides*) in heritage agreement areas in South Australia. The sample included 264 landowners of the 640 heritage areas in existence during the November 1992 to February 1993 survey. The weed was most frequently reported from the Mount Lofty Ranges, eastern Fleurieu Peninsula (especially around Lake Alexandrina), east of

the Murray River from south of Murray Bridge to Blanchetown, southern and western Eyre Peninsula, Yorke Peninsula north to Port Pirie, the upper South East and lower Murray Mallee and eastern Kangaroo Island. Least occurrences were in the lower South East, inland regions, on the West Coast and in the upper and

eastern Murray Mallee. Roadsides were particularly infested with the weed and significant examples are listed. Fourteen percent of respondents did not know the weed and 14% reported that the plant was present in their gardens.

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