



Australian Government
Department of Agriculture,
Fisheries and Forestry



Weeds of National Significance

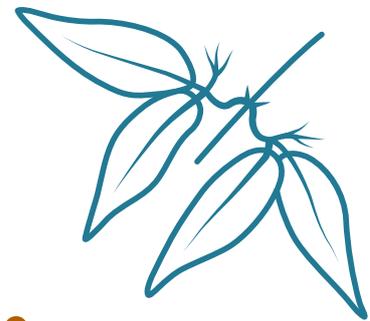
Invasive vines



National best practice management manual for cat's claw creeper
(*Dolichandra unguis-cati*) and Madeira vine (*Anredera cordifolia*)



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Weeds of National Significance
2024

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Cataloguing data

This publication (and any material sourced from it) should be attributed as:

Bernich, A. Potter, S. and Sheehan, M. (2024). National best practice management manual for cat's claw creeper (*Dolichandra unguis-cati*) and Madeira vine (*Anredera cordifolia*). Department of Agriculture, Fisheries and Forestry, Canberra. CC BY-NC-ND 4.0.

ISBN 978-0-6456718-4-1 (pdf)

ISBN 978-0-6456718-5-8 (print)

This publication is available at www.weeds.org.au

Acknowledgements

This publication was funded by the Department of Agriculture, Fisheries and Forestry.

This publication was produced by Wild Matters Pty Ltd.

Wild Matters Pty Ltd
10 Templeton Street
Castlemaine Vic 3450

Cover images by Sheldon Navie, Matt Sheehan, R.G. and F.J. Richardson and Sonia Jordan.

Maps prepared by Farzin Shabani, Macquarie University.

Design and typeset by R.G. and F.J. Richardson, Melbourne, Victoria.

Acknowledgement of Country

We acknowledge the Traditional Custodians of Australia and their continuing connection to land and sea, waters, environment and community. We pay our respects to the Traditional Custodians of the lands we live and work on, their culture, and their Elders past and present.

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Acknowledgements

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Valuable support, comments, information and/or review provided by

ACCESS – Australian Centre for Culture, Environment, Society and Space

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Gabrielle Vivian-Smith, Department of Agriculture, Fisheries and Forestry (Commonwealth)

Ben White, Port Macquarie Hastings Council, NSW

Additional information sources

The authors would like to give special recognition to the work of the former national coordinator for cat's claw creeper and Madeira vine, Kym Johnson. During her time as national coordinator Kym created networks, compiled information, raised awareness and promoted best practice management of these vines, whilst also promoting the need for holistic management of invasive vines more broadly. Kym generously shared her information, knowledge and experience with the authors to enhance the manual.

The authors gratefully acknowledge the Australian National Botanic Gardens and the Australian Plant Image Index as the source of several plant images in this publication. You can view the image collection at anbg.gov.au/photo

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Using this manual

Who should use this manual?

This manual has been written to assist anyone with an interest in managing invasive vines, from site managers, community groups, private landholders and volunteers to government agency staff and managers of waterways and resources. The manual's content is intended to help people make decisions about invasive vine management by providing a guide based on current knowledge and understanding of best practice.

Where does the information come from?

The information in this manual has been sourced from Australian and international published material, research, and reviews by technical experts. It also incorporates the experiences of individuals and organisations currently managing invasive vines in Australia.

While this manual aims to provide a synthesis of the most current information on best practice management of cat's claw creeper and Madeira vine, it is acknowledged that this will continue to evolve. Further information will come from future research, continued development of weed control tools, and ongoing land manager observations on managing these invasive vines throughout Australia.

How to use this manual

This manual has been designed to allow easy access to all available information on managing cat's claw creeper and Madeira vine. Arranged in six stand-alone yet complementary chapters, the manual presents an overview of invasive vines and scramblers (Chapter 1), a guide to the biology and impacts of cat's claw creeper and Madeira vine (Chapter 2), how to develop a weed management plan (Chapter 3), how cat's claw creeper and Madeira vine can be prevented and controlled (Chapter 4) and case study examples of how these weeds are being managed (Chapter 5). Chapter 6 provides more specifics and sources of further information.

The manual also highlights how to increase a site's resilience to future weed invasion and assess the potential need for site restoration based on disturbance levels. The role of natural regeneration and revegetation after invasive vine control is also discussed.

It is important that the information provided in this manual is adapted by individuals according to their own environmental, financial and social circumstances. Always seek local advice in planning weed control on your property or the sites you manage.

Summary of the six chapters

1. Invasive vines and scramblers – an overview

- The difference between vines and scramblers
- Where they come from
- General impacts
- Help with identification



2. Biology, ecology and threat – cat's claw creeper and Madeira vine

- Identification
- Invaded habitats and distribution
- Life cycle
- Impacts



3. Planning

- The importance of planning
- How to prioritise areas for control
- How to develop a management plan



4. Controlling cat's claw creeper and Madeira vine

- Management principles and challenges
- Choosing a control method
- Preventing weed entry and spread
- Physical, herbicide and biological control
- Additional management considerations



5. Case studies

- What are other land managers doing?
- Applying integrated weed management
- Overcoming challenges
- Practical tips and learnings



6. Further information

- Identification of other vines and scramblers
- Legal obligations to control
- Useful contacts
- Herbicide use, training and certification
- References

Glossary

Allelopathic	A plant releases chemical compounds that affect the growth, development, and distribution of other plants and microorganisms
Appendages	A subsidiary part of a plant, such as a leaf or branch, that is usually smaller and less functional than the main part it is attached to
Compound leaves	Leaves that are made up of multiple leaflets that are attached to a common stalk
Delimitation	The process of determining the full extent of an invasion. This usually involves intensive surveys of areas in which the species is considered likely to be present (Blood et al., 2019)
Dispersal	Process of transporting propagules via a vector, such as wind, water, birds or other animals
Eradication	The elimination of every individual plant and propagules (both seeds and vegetative plant parts) in a defined area, plus no further reintroduction from outside the area
Exotic	See 'introduced'
Introduced plant	A plant that has been moved from its native environment to a new location by human activity, either intentionally or accidentally
Invasive plants	Non-native plants that are introduced to a new area and spread rapidly, causing harm to the environment, economy, or human health
Propagule	Any part of a plant that can become detached to produce a new plant, e.g. bud, sucker, seed, spore
Scrambler	A plant that creeps along the ground and grows over other plants using hooks, thorns, or tendrils
Skirting	A control method for cat's claw creeper that involves cutting vines at chest height and again just above ground level. It does not kill underground tubers and follow-up control is required
Stomata	Microscopic pores on the surface of plants that allow for gas exchange and water loss control
Surveillance	The process of monitoring and recording the presence, absence, and population levels of pests and diseases to detect and respond to biosecurity threats
Threatened ecological communities	A rare group of native plants, animals, and other organisms that are at risk of extinction
Transformer species	A type of invasive plant that can significantly alter the nature of an ecosystem over a large area
Vegetative reproduction	A type of asexual reproduction where a new plant grows from a fragment of the parent plant
Vine	A plant that uses different features to climb, such as spines, tendrils and aerial roots
Weed incursion	When an invasive species is detected in a region for the first time, or when isolated populations of an invasive species are newly discovered

Abbreviations

ACT	Australian Capital Territory
Cth	Commonwealth
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DPI	Department of Primary Industries
GPS	global positioning system
NRM	Natural Resource Management
NSW	New South Wales
Qld	Queensland
SA	South Australia
SEQ	South East Queensland
NT	Northern Territory
Tas	Tasmania
Vic	Victoria
WoNS	Weeds of National Significance
WA	Western Australia



WoNS
WEEDS OF
NATIONAL
SIGNIFICANCE

Cat's claw creeper and Madeira vine are Weeds of National Significance

These species were added to the existing list of 20 Weeds of National Significance (WoNS) in 2012. National strategic plans were developed, which aimed to prevent new incursions; encourage best practice management of existing infestations; and increase capacity and willingness to manage these weeds.

For more information visit: weeds.org.au/lists/established/