

CAT'S CLAW CREEPER GROSE VALE—KURRAJONG'S MOST UNWANTED WEED.

AN INFORMATION GUIDE FOR LANDHOLDERS ON ITS CONTROL
BY HAWKESBURY ENVIRONMENT NETWORK



Have you
seen this
plant?



Local Land
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Greater Sydney



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CAT'S CLAW CREEPER

A Guide to the weed and its control for landholders in the Hawkesbury.

Please join our Landcare operation to help stop its destructive spread through our bushland!

Cat's Claw Creeper is listed as a Weed of National Significance (WONS) because of its environmental impacts, invasive ability and serious potential to spread.



Cat's Claw Creeper (*Dolichandra unguis-cati*) is an aggressive and highly invasive weed that has escaped from home gardens. It was first reported as being naturalised in the 1950s. It is a **transformer species** because of its capacity to completely alter native ecosystems. Cat's Claw Creeper smothers and kills mature trees, opening up the canopy for light-loving weeds. In areas where there are no standing structures, it forms dense mats that prevent growth and germination of desirable understorey vegetation.

What are we doing about this?

Hawkesbury Environment Network (HEN) has now begun a Cat's Claw Control Project starting in your area to map and plan eradication of this weed. This is a collaborative working project supported by Hawkesbury City Council (HCC) and Hawkesbury River County Council (HRCC) with government agencies and other groups, including Hawkesbury Rainforest Network (HRN). It is supported by the Greater Sydney Local Land Services (GSLLS) with funding from the Australian Government. See more details for contacts on the last page.

About this booklet. The front cover shows Cat's Claw Creeper smothering tall gums in the main street of Kurrajong, and detail of its flowers. The back cover shows scenes of bushland and creeks within Kurrajong locality, all within walking distance of the village. All of these places have been the focus of Landcare and Bushcare study and works by various individuals and groups, especially members of Hawkesbury Rainforest Network (HRN). It is hoped that this publication is relevant and useful to residents of this area.

Why Control Cat's Claw?

In this area (Grose Vale-Kurrajong) we are discovering the spread of the weed not only onto roadsides from gardens, but also deeply invading 'good bush' ie bush which has had minimal disturbance in the past and should be resistant to most weed invasion. Roadside trees are usually not treated and the vine continues to grow high into the canopy. Papery seeds then blow from the ripened pods and carry by wind or water over long distances. Established plants can reproduce vegetatively from tubers and creeping stems. It is the underground tuber bank which allows populations to persist.

Cat's Claw also spreads from gardens as a result of human propagation and rubbish dumping.

In its distribution from Sydney northwards, the plant communities most invaded by Cat's Claw are those in riparian zones (waterways such as Little Wheeny Creek is particularly vulnerable), and subtropical and tropical rainforests. These also include ecosystems classed as Endangered Ecological Communities (EECs). Most surviving remnants of these communities are small and particularly prone to weed invasion and degradation. Intact riparian vegetation along our better creek systems is needed to stabilise streambanks, provide habitat and maintain water quality.



Smothered trees in native forest and on the banks of the Clarence River NSW.

Photos by Liza Smith, Wollongong University.

What to do about Cat's Claw in our region?

The current project is following initial guidelines set out under a National Strategic Plan. Mapping infestations, identification of sites with the greatest biodiversity significance which should be given highest priority for weed removal; liberating mature native trees from vine weeds to enable recovery of the canopy; and educating landholders are all part of this plan.

- 1. Prevent Cat's Claw spread.** Identify locations where it occurs as isolated plants and remove seedlings, treat isolated plants or clumps. Keep uninfested areas free of the creeper.
- 2. Reduce established infestations** through a strategic long-term weed management plan. Do not overclear or spray herbicide across large areas as this leads to further invasion by other weeds. Attempt to reduce seeding through cutting vines on mature infestations. Investigate use of biological controls through Grafton Department of Primary Industries (DPI).
- 3. Monitor and evaluate effectiveness of plan,** including regeneration of native species. Follow-up 2-3 times a year is essential. **NOTE:** This weed should be target controlled as a priority owing to its limited occurrence in the Hawkesbury. Early intervention is highly recommended as this vine can be very difficult and costly to control once it becomes established.

How to identify Cat's Claw?

Growth Habit

Cat's Claw is a perennial woody vine with climbing tendrils ending in three tiny, sharp, hooked claws resembling a cat's claw. The 'claws' form at nodes along climbing stems allowing the vine to extend up and over tree canopies, eventually smothering even the largest tree. Vines are fire, drought and frost resistant.

Roots

An extensive matted root system produces numerous swollen underground tubers. Each tuber sprouts foliage that forms a carpet of stems and leaves.

Leaves

Twinned glossy leaflets are dark green on top, pale green below and arranged opposite on the stem. Young leaflets are red-brown.

Flowers

Masses of large, bright yellow bell-shaped flowers (~ 8cm) are highly visible from spring to summer. Flowers are irregular, having two prominent ribs in the throat with three petals on the lower side and two petals on the upper side.

Seed and seedling development.

Numerous long, flattened bean-shaped seedpods (~30-60cm long) are produced from summer to autumn. Pods turn brown when ripe in late summer to autumn, approximately 6-10 months after flowering. Seedpods split to release a profusion of wind and waterborne, two-winged, papery seeds in late May with peaks in July and August. Seedlings start to develop small tubers (~1.5-2cm) at the two-leaf stage.



Seeds, leaflets, tendrils, flowers and pods.

Photos by Sheldon Navie.

Similar Species

There are numerous **native vines** occurring in the same area and habitat. Do not confuse cat's claw with these. Seek expert advice if unsure. See page 7.

Control Methods.

Established infestations of Cat's Claw Creeper require a long term integrated approach involving hand based methods, spraying and regular follow-up. This often requires initial treatment of climbing vines, then foliar spray/spot spray of seedlings, lateral runners and vine regrowth.

1. Hand control on small local infestations is done through **Cut, Scrape and Paint** method. **Mature climbing vines** are treated by cutting at a convenient height with loppers, pruning saw or tomahawk. Pull or lever out from host lower part of vine stem and cut down at knee height, deeply scrape and paint **immediately** with glyphosate & water at 1:1.5 to the cut surface of the lower part of the vine attached at the base, using a paint brush or small-nozzle applicator or squirt bottle. Act quickly to ensure rapid uptake by the vine and a more effective kill. The vine up the tree will die when severed from its roots.

2. Smaller vines that have begun to attach/climb host: Cut smaller vines with secateurs. Lightly scrape the stem eg with knife blade or secateurs blade to increase the chemical absorption area and paint/spray with poison as for the previous treatment. Pull juvenile vines away from host and spray with herbicide. Both methods 1 and 2 are best carried out by pairs working together to save delays between cut or scrape and the poison being applied. See next page for diagrams of these techniques.

3. Tuber removal should not be undertaken by hand except in small infestations as soil disturbance results in damage to remnant native vegetation, and leads to soil erosion. This should not be undertaken on stream banks for that reason.



Fig 1. and 2. Demonstration by a bush regeneration contractor of the cut, scrape, paint method on mature vine on a cypress which was almost dead because of smothering of the canopy. Note the variety of vine sizes.

Fig 3. An ironbark which has been treated two years before this photo was taken. Note the ends cut at a height where any new creepers will be easily detected. In fact, small creepers are emerging from underground tubers at the tree base and will need follow-up.

Photos: Robin Woods

Control Methods continued..

4. **Seedlings, small climbers, low blanketing foliage and ground runners:** foliar application of glyphosate & water at 1:100 (10ml/L) where there is no potential for run-off into waterways or where there is no likely impact on native species. Pull small runners off trees and lay on the ground for spraying.

5. **Large infestations, including regrowth and ground cover** are best controlled using appropriate herbicides following strict guidelines and preferably by a skilled contractor. Inappropriate use can lead to spray drift and off-target kill, contamination of waterways, destruction of native fauna species and habitat. It is a legal requirement to use chemicals in accordance with labels and permits.

6. **Biological Control.** NSW DPI has developed a biological control for Cat's Claw Creeper, the Tingid insect. The release of this bug into local infestations is being investigated.

Disposal of weed waste: All tubers, pods, seeds and root material can resprout. Correct disposal is by bagging in a black plastic bag, sealing and 'baking' it in the sun until destroyed. The smaller creepers can be left to dry out and composted. Never dump any weed material or garden waste over the back fence or in bushland.

Diagrams of weed control techniques used in bush regeneration: Source: Virginia Bear.

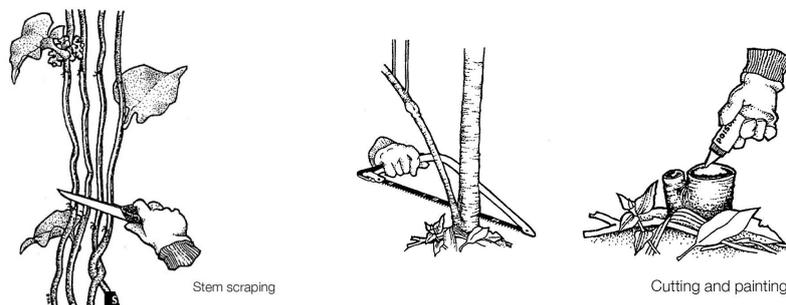


Fig 4. Tubers and underground root systems with juvenile leaves. Fig 5. A ground layer of litter with several seedling Cat's Claw vines emerging and starting lateral growths across the ground.

Fig 6. This tree was completely covered with vine in April when it was first treated. Four months later all the top vine growth is dead and can be left. The base of the tree will need to be inspected for up to 2 years to kill any regrowth from the tubers until their storage is exhausted .

Where to seek assistance

For guidance on plant identification, Bushcare, weed treatment: Hawkesbury City Council Community Bushcare Officer Martin Gaudi E: mgauci@hawkesbury.nsw.gov.au or , Council Community Nursery Officer Jutta Hamilton E: jhamilton@hawkesbury.nsw.gov.au Call Council on 4560 4444

Courses: Richmond TAFE Conservation and Land Management Certificate. TAFE contact 131 870

For help with large infestations on your property: Hawkesbury River County Council Chris Stanfield Manager Weeds Operations 4574 9605. E: om@hrcc.nsw.gov.au

or HCC Land Management Officer Michael Pattison. E: mpattison@hawkesbury.nsw.gov.au 4560 4444

For small infestations, training in techniques of plant id and treatment of cat's claw:

Contact Project Contractor: Jacob Philpott MOB. 0411 368 502

For local advice on noxious weed regulation: Hawkesbury River County Council 4574 9605

To join Landcare or seek further assistance in land management issues: Contact Vanessa Keyzer: Regional Landcare Facilitator, Greater Sydney Local Land Services Ph 4725 3041 E: vanessa.keyzer@lls.nsw.gov.au

Acknowledgements: Material mainly sourced and compiled from Weed Management Guide prepared by Kym Johnson, Biosecurity Queensland DEEDI, 2011.

http://www.weeds.org.au/WoNS/catsclawcreeper/docs/WMG_CATS_CLAW_CREEPER-final.pdf

Weeds Australia: Weeds of National Significance <http://www.weeds.org.au/WoNS/catsclawcreeper/>

NSW Primary Industries Biosecurity: <http://www.dpi.nsw.gov.au/agriculture/pests-weeds/weeds>

OTHER:

Websites and Facebook sites:

Hawkesbury Rainforest Network : <http://www.hawkesburyrainforest.org.au/>

Hawkesbury Environment Network: <http://www.hen.org.au/>

Native Plants and Weeds of Kurrajong: <https://www.facebook.com/kurrajongplants>

Hawkesbury River County Council: <http://www.hrcc.nsw.gov.au/>

Hawkesbury City Council: <http://www.hawkesbury.nsw.gov.au/>

Useful Weed and Native Plant references:

Australian Association of Bush Regenerators: <http://www.aabr.org.au/>

Field Guide to the native Plants of Sydney by Les Robinson Kangaroo Press.

Restoring Natural Areas in Australia by Robin Buchanan NSW DPI & AABR

Noxious and environmental weed control handbook. NSW DPI Management Guide 5th Ed. http://www.dpi.nsw.gov.au/_data/assets/pdf_file/0017/123317/Noxious-and-environmental-weed-control-handbook.pdf

Weeds of Blue Mountains Bushland Booklet Guide to Identification and Control available on

<http://www.weedsbluemountains.org.au/>

PROJECT CONTACTS:

Jacob Philpott: Mob. 0411 368 502 Professional Bush Regenerator and Cat's Claw Project Contractor /Trainer

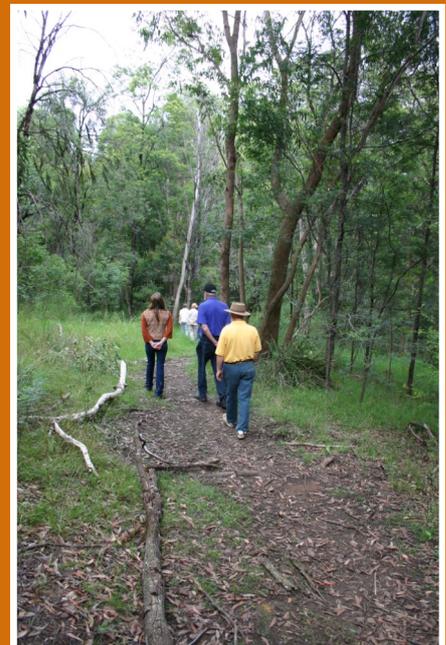
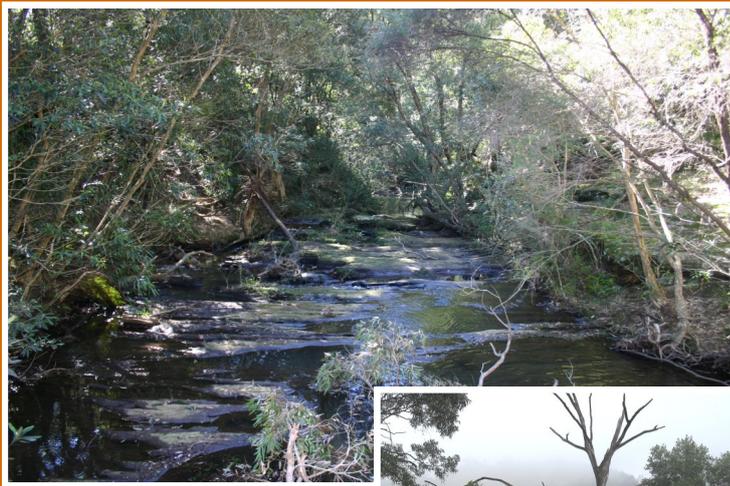
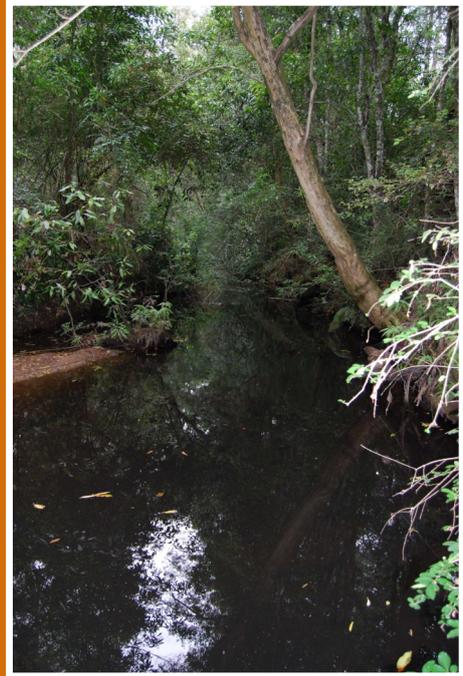
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Caring for our bush in Grose Vale—Kurrajong
Scenes and landscapes worth maintaining for the future.



Photos: L to R, from top.

Rainforest at Loxley. Little Wheeny Creek scenes. Sandstone ridge in Kurrajong Hills. HRN Landcare members and Bushcare volunteers in McMahon Park bushland regeneration area.