Local Land Services

Case study | Clarence Valley

Cat's claw creeper control on the Nymboida River

The Issue

Cat's claw creeper (*Dolichandra unguis-cati*) is a serious environmental weed in the Clarence Valley and a Key Threatening Process in NSW. Cat's claw creeper is a vigorous woody vine with claw-like tendrils and persistent underground tubers (Figure 1). It forms dense mats which smother and strangle riparian vegetation to the point that large mature trees die and fall into waterways, completely transforming affected areas. Cat's claw creeper's seeds and tubers can spread downstream by water, and its seeds can also be spread long distances by wind.

Figure 1. Cat's claw creeper, *Dolichandra ungis-cati*

In the mid reaches of the Nymboida River, cat's claw creeper is still limited in distribution and eradicable; it's yet to affect the landscape on a large scale like it has elsewhere in the Clarence Valley. Previous Clarence Landcare riparian regeneration projects (since 2006) have managed to keep any serious infestations at bay along the mid reaches of the Nymboida River.

The riparian area of the Nymboida River (Figure 2) is a unique mix of water gum (*Tristaniopsis laurina*), grey myrtle (*Backhousia myrtifolia*), Dunn's White Gum (*Eucalyptus dunnii)* and silky oak (*Grevillea robusta*) with swathes of river oak (*Casuarina cunninghamiana*) forest between. This plant community is floristically distinct from all other riparian vegetation in nearby catchments, with rare endemic species such as creek triplarina (*Triplarina imbricata*), a tea tree relative, brush sauropus (*Phyllanthus microcladus)* and provides habitat to platypus and eastern freshwater cod. It is important to conserve and protect the Nymboida River from weeds like cat's claw creeper.

Figure 2. View of the Nymboida River upstream of the Armidale Road bridge

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The past three years of wet weather, preceded by 2019-2020 bush fires, have provided ideal conditions for cat's claw creeper to spread and grow. This makes it harder to manage infestations along the mid Nymboida River (Figure 3). It was important to find out where the cat's claw creeper had spread to and manage the infestations.

Figure 3. Cat's claw creeper smothering riparian vegetation at Redbank

The Solution

In July 2023, Clarence Landcare surveyed for cat's claw creeper along the mid Nymboida River at known sites and neighbouring sites. The survey found no cat's claw creeper upstream of the Armidale Road bridge. Below this point, cat's claw creeper had become a problem again at previously managed sites because there had not been enough funding for follow-up treatment. Cat's claw creeper was also discovered in new areas, presumably having spread in the recent wet years. Tracts of the Nymboida River below 'Redbank' were inaccessible and too heavily infested with cat's claw creeper to manage. Upstream of Redbank (inclusive), infestations were mapped across the eight affected properties and weed contractors were arranged for control works.

A variety of control methods were used to treat the Infestations of cat's claw creeper. At some sites, other weeds like small-leaved privet and lantana needed to be removed before treatment could begin. Herbicides were applied to the leaves and stems of small cat's claw creeper plants. whereas the most effective method to treat larger plants was to dig and apply herbicide directly to the tubers. Tubers were also manually removed at one site (Figure 4) where chemical use was not an option. Landholders and all sites were educated on how to identify and manage cat's claw creeper where possible.

Figure 4. Contractors manually removing cat's claw creeper tubers

Ongoing management is needed as part of the solution for cat's claw creeper infestations into the future, particularly at sites where follow up treatments are needed (Figure 5).

Figure 5. Treated cat's claw creeper compromised by a burn

The Impact

Unlike other areas in the Clarence catchment these reaches of the River are manageable, with eradication a realistic target provided adequate funds are available. It is incredibly important to control this weed and limit its spread, particularly after high rainfall and flooding over the last several years. The survey efforts have increased our understanding of the distribution of cat's claw creeper along the mid Nymboida River, helping us to prioritise properties for management. Initial treatment works have reduced the threat of cat's claw creeper growth this season, meaning that the mid Nymboida River is protected from further spread, although ongoing treatments and vigilance are needed.

This work helps to protect the conservation values and ecosystem services of the upper Nymboida River. Strong and healthy river banks provide habitat for platypus, endangered eastern freshwater cod and maintain good water quality. The Nymboida River is an important water source for native species and also provides drinking water to Coffs Harbour and the Clarence Valley. With continued effort to manage and mitigate the invasion of cat's claw creeper, the Nymboida River can remain a stronghold for biodiversity and threatened species.

Morning fog on the Nymboida

"Bianca and Rowan did an excellent job of weed control work on my land last month. 😊 Please pass on my thanks to Daniel for organising the project."

– Geof Nanto, Nymboida, 19/09/2023

Prepared by Daniel McCawley of Clarence Landcare. 28/09/2023

For more information

Contact your nearest Local Land Services office on 1300 795 299 or visit our website www.lls.nsw.gov.au