



Lake Macquarie  
Landcare

# Case Study

## Rainforest Site

# Floraville Ridge & Rainforest Reserve



*Livistona australis* Cabbage Tree Palms in the rainforest, are a feature of Floraville Ridge and Rainforest Landcare.

### Project Partners:

- Lake Macquarie Landcare Resource Centre (Lake Macquarie City Council and Lake Macquarie

Landcare Volunteer Network Inc.)

- NSW Environmental Trust
- Floraville Ridge & Rainforest Landcare

## Background

Floraville Gully, a Lake Macquarie City Council reserve, was previously owned and farmed by the Marks family. The terraced hillside, in the lower gully, is evidence of their fruit and vegetable farm. Once the farming ceased, lantana flourished on this fertile hillside and hid the terraces.

## Site Information

Floraville Ridge and Rainforest Reserve is a 10 hectare site off Coronet Close, Duchess Close and Imperial Close, Floraville, Lake Macquarie. The land is owned by Lake Macquarie City Council (LMCC) and is one of a number of Council sites that contain rainforest remnants. It is strategically important that these sites are not considered in isolation but as 'links in the chain' of rainforest remnants along the NSW coast. The Floraville Ridge and Rainforest Reserve is a significant reserve in terms of its connectivity with Green Point Foreshore Reserve to the south-west and in terms of the protective buffer it provides for the gully rainforest/palm forest to the south and south-east of the ridgeline.

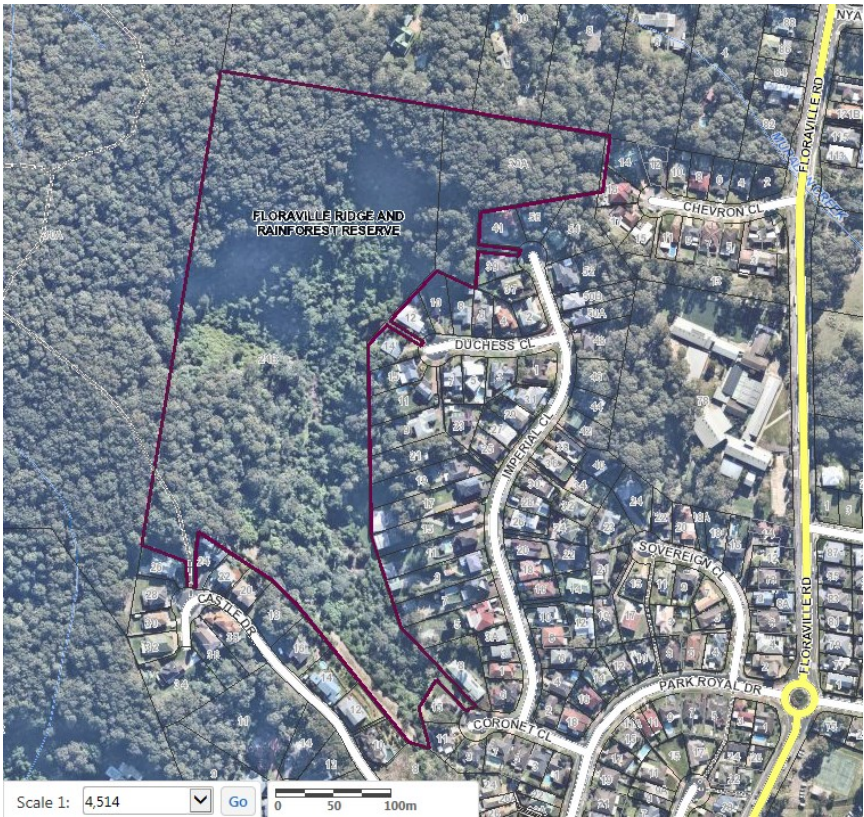
## Lake Macquarie

Lake Macquarie is located on the NSW east coast. It contains mountains, forests, waterfalls, extensive beaches, and a large coastal estuarine lake with an area of approximately 110 square km, and a catchment area of 605 square km.

These areas support a wide range of habitats and uses including nature conservation, recreation, residential and commercial development and rural activities. As a result, the natural environment has suffered a high degree of modification and degradation.

## Aboriginal Heritage

Lake Macquarie is rich in Aboriginal cultural heritage dating back tens of thousands of years. The people who lived around Lake Macquarie and Newcastle were known as the Awabakal which means "*the people of the flat surface*" presumably referring to the Lake and its flat surrounds.



Above: Site locality map

## Vegetation

The Vegetation Communities of the Floraville reserve are:

- 15h Lake Macquarie Spotted Gum Forest on the ridge,
- 12 Hunter Valley Moist Forest and 3e Lake Macquarie Dry Forest on the mid-slopes,
- 1g Permian Gully Rainforest in the gully.

The 1g zone is likely to be an Endangered Ecological Community - Lowland Rainforest. There is *Syzygium paniculatum* Magenta



Lillipilly, *Archontophoenix cunninghamiana* Bangalow Palm and *Livistona australis* Cabbage Tree Palm growing together, which is unusual in eastern Lake Macquarie. This community is subject to the threatening processes of close proximity of housing and weed infestation.



Juvenile Cabbage Tree Palms in the rainforest

The reserve is home to Threatened Species *Tetradlea juncea* Black-eyed Susan and *Rhodamnia rubescens* Scrub Turpentine (Critically Endangered). The cycad *Macrozamia flexuosa* is also found in the reserve. Terrestrial orchids *Caladenia alba*, *Corybas aconitiflorus*, *Acianthus fornicatus*, *Pterostylis* sp., *Cryptostylis erecta*, and New South Wales Christmas Bush *Ceratopetalum gummiferum*, are all present within the reserve.



*Syzygium paniculatum* Magenta Lillipilly

Regionally Significant Rainforest Species that occur or could occur in the reserve include:

### Trees

*Abrophyllum ornans* - Native Hydrangea

*Archontophoenix cunninghamiana* - Bangalow Palm

*Cryptocarya rigida* - Native Laurel, Rose Maple

*Dysoxylum fraserianum* - Rosewood  
*Elaeocarpus obovatus* - Hard Quandong, Ash  
*Ficus fraseri* - Fraser's Fig, Sandpaper Fig  
*Gmelina leichhardtii* - White Beech  
*Livistona australis* - Cabbage Tree Palm  
*Rhodomyrtus psidioides* - Native Guava  
*Syzygium paniculatum* - Magenta Lillipilly  
*Toona ciliate* - Red Cedar

### **Understorey**

*Alpinia arundelliana* - Native Ginger  
*Alpinia caerulea* - Native Ginger  
*Callanthe triplicate* - Christmas Orchid  
*Cordyline stricta* - Narrow-leafed Palm Lily

### **Weeds**

High Priority Weeds present on site include:

Crofton Weed  
Asparagus Fern  
Bitou Bush  
Lantana  
Small-leafed Privet  
Japanese Honeysuckle  
Blackberry  
Moth Vine  
Cork Passionfruit  
Senna/ Cassia

## **Fauna**

The vegetation communities of the Floraville Ridge and Rainforest Reserve, together with the adjacent Floraville gully rainforest remnants and Green Point Foreshore Reserve provide habitat for, and are visited seasonally by a number of Threatened and Regionally Significant Species. Fauna of note includes:



**Floraville gully's resident Powerful Owl**

Powerful Owl - a Threatened Species sighted regularly in the rainforest remnants;

Barking Owl, - a Threatened Species sighted occasionally in the rainforest remnants;

Squirrel Glider - a Threatened Species of Open Forest zones;

Grey-headed Flying Fox - A Threatened Species - sightings coincides with fruiting of rainforest trees and palms;

Satin Bowerbird - sighted occasionally in the rainforest remnants;

Regent Bowerbird - sighted in summer in the rainforest remnants;

Diamond Python - a common sighting on the rainforest edge;

Topknot Pigeon and White-headed Fruit Pigeon - sighted annually feeding on fruits in the rainforest remnants.

## **Landcare group**

Floraville Ridge and Rainforest Reserve Landcare group has been working since 2002 under the leadership of Team Leader Winsome Lambkin. Although group numbers have fluctuated over the years a core group continue to work weekly as their circumstances allow.

The Landcare Group also run community awareness programs on site to raise the profile of the natural environment and to encourage the community to protect native species and help minimize weed species. The group has successfully undertaken weed control activities in areas of the site for many weeds such as Lantana, Small-leafed Privet, Honeysuckle and Bitou. They have replanted with fire-retardant native species in an effort to reduce the risk of fire to neighbouring properties.



**November 2007: This area near the track up the gully was cleared of Lantana, Privet & Honeysuckle. Landcarers are seen replanting the area with natives**

The group's plan is to remove weeds from around the larger native trees thus allowing for natural regeneration. Native plants such as Acacia, Omalanthus, Trema and Alphitonia have grown on cleared tracks and this is an indication that the area has a high resilience, with a variety of viable seed. A more tedious task has been the removal of Crofton Weed tangled with Honeysuckle, along the creek bed.

### **Landcare in Lake Macquarie**

Lake Macquarie Landcare is a partnership between Lake Macquarie Landcare Volunteer Network Incorporated (LMLVN inc), thousands of dedicated and committed community volunteers, and the Lake Macquarie City Council (LMCC) which provides project support through the Landcare Resource Centre (LRC).

If you would like to get involved in Landcare in Lake Macquarie or would like more information please contact the LRC on 4921 0392.

## Projects and achievements

### 2008-10 Floraville Rainforest Project

This project was made possible by funding from the Environmental Trust through their Environmental Restoration and Rehabilitation Community Grants Program. The project provided assistance by professional bush regenerators for the Floraville Ridge and Rainforest Landcare group. The volunteers worked alongside the bush regenerators in an approximate area of 4 hectares which is just part of the much larger reserve.

The project included an awareness program involving the local community in plant recognition, vegetation suited to the margins of the reserve, weed control methods, and the impacts of stormwater run-off.

Floraville Ridge and Rainforest Landcare Group celebrated the launch of the Rainforest Project on 12 March 2008, with over 50 people in attendance. Those present included Members of

Parliament, members of the Aboriginal Local

Land Council, Lake Macquarie City Council staff, members of other Landcare groups, six pupils from Floraville Public School and members of the local community.



Project launch

Part of the launch included the commencement of the awareness program where samples of Lantana, Bitou Bush, Privet and Honeysuckle were shown to those present. As well, differences were pointed out between Lantana and its look-alike native species, Trema.



In 2009, an eager Green Corps Team, under the leadership of Amy Trello, cleared the 'lantana terraces'. This was challenging work as the slope was steep and the lantana thick and tall, it being the only plant on the site.



**April 2009: The Green Corps Team clearing the Lantana**

Following the weeding, native plants were put in and marked with stakes.

Of course, then the secondary weeds burst forth, but for a while anyway, the stakes showed above the weeds.

In August 2010, The Green Team worked their way across the slope, ripping out Ink Weed, Sticky Beaks, the tops of Turkey Rhubarb and cutting and painting Wild Tobacco. Once again the plants were visible.



**August 2010: Showing growth of new plants as well as secondary weeds**

The site was monitored for natural regeneration of Breyntia, Trema, Bleeding Heart, Dianella and Passiflora.

A Field Day occurred on Sunday, 26 September 2010 to mark the culmination of the three year Environmental Trust Grant.

## 2018-20 Environmental Trust Project

In 2018 Lake Macquarie City Council obtained \$28,000 through the Environmental Trust Restoration and Rehabilitation Program to support the Landcare group with professional bush regeneration assistance. The project aims to help protect and regenerate the rainforest gully within the Floraville Reserve and build on and extend the weed control work undertaken so far by the Landcare group with LRC assistance.

As part of the project, Floraville Ridge Reserve Landcare group volunteers are working along with professional bush regenerators in an approximate area of 1.25 hectares, focusing on sections that have been identified for their strategic value in protecting and regenerating the Lowland Rain Forest EEC. The professional bush regeneration team are also focusing on activities beyond the capacity of the Landcare volunteers, such as where spraying and the use of specialist equipment and skills are required.

The project also aims to raise community awareness about the value of the rainforest gully, Threatened Species and other fauna and how residents can assist or join the Landcare group. A morning tea was held with local residents, Landcare volunteers and the Lake Macquarie Landcare Green Team on 4 December 2018 to launch the project.

The project will continue to invite local residents to regular working bees through flyers, and provide wider project promotion through Lake Macquarie Landcare



Morning tea launching the project



Green Team hand weeding beside path

newsletters, social media and website. A showcase event will be held at the conclusion of the project.



**Before primary weed spray by bush regeneration contractors**



**After 2019 primary weeding**



## References and Further Information

Bell, S.A.J. (2016) Volume 2: Vegetation Community Profiles, Lake Macquarie Local Government Area. Working Draft v2. Unpublished Report to Lake Macquarie City Council. March 2016. Eastcoast Flora Survey available at [www.lakemac.com.au](http://www.lakemac.com.au)

Buchanan, R, 2009, *Restoring Natural Areas in Australia*

LMCC, 2004, *Lake Macquarie Coastal Planting Guide*, available at [www.lakemac.com.au](http://www.lakemac.com.au)

PlantNET (The NSW Plant Information Network System). Royal Botanic Gardens and Domain Trust, Sydney. <http://plantnet.rbgsyd.nsw.gov.au>

The Lake Macquarie Landcare website [www.lakemacquarielandcare.org](http://www.lakemacquarielandcare.org) provides links to newsletters, environmental programs, grants, Landcare, weeds and trees.

If you wish to know more about this and other projects in Lake Macquarie please contact the Landcare Resource Centre.

Produced at the Landcare Resource Centre 2019



Landcare Resource Centre  
80 Toronto Road, Booragul NSW  
Box 1906 HRMC NSW 2310  
Phone: 4921 0392

Email: [Iro@lakemac.nsw.gov.au](mailto:Iro@lakemac.nsw.gov.au)  
[www.lakemacquarielandcare.org](http://www.lakemacquarielandcare.org)  
Opening Hours:  
Monday to Friday 8am - 4pm



*Lake Macquarie Landcare is proudly supported by Lake Macquarie City Council*