

RAINFOREST SITE

A case study of

Fifteen Trees Project - Galgabba Landcare GALGABBA POINT, SWANSEA

Project Partners:

- Lake Macquarie Landcare Resource Office (Lake Macquarie City Council and Lake Macquarie Landcare Network Inc.)
- Galgabba Landcare Group
- Fifteen Trees
- MAS National



"Fifteen Trees" Port Jackson Fig - *Ficus rubiginosa* at Galgabba Point



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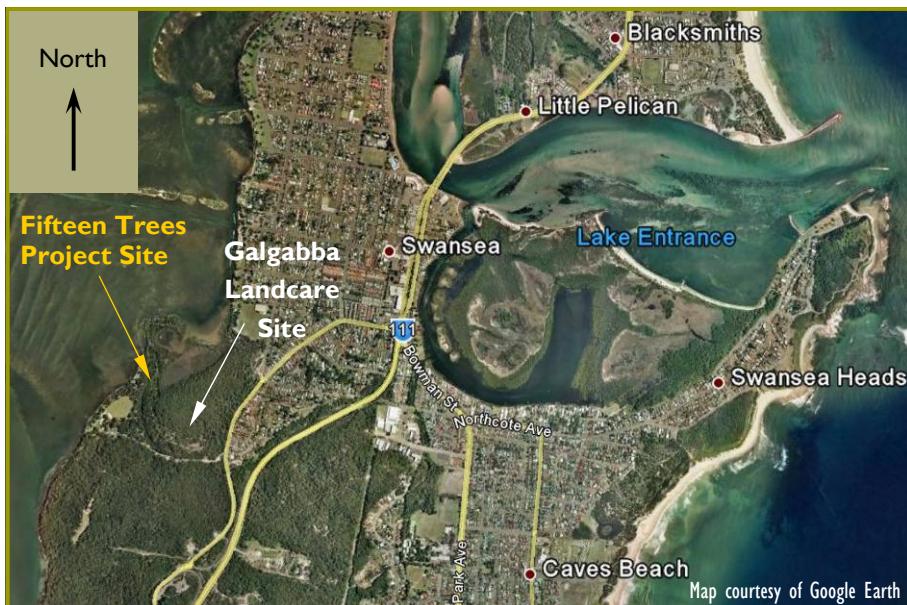
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Lake Macquarie

Lake Macquarie has mountains with forests and waterfalls, extensive beaches, and a spectacular lake. The lake is a large coastal estuarine lake of 22 km length (N-S), 10 km width, an area of approximately 110 square km, and a catchment area of 605 square km. The lake contains 12 major, and many more minor, estuarine creek zones where freshwater tributaries interface with the saline body of the lake. 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.



Early (c1950's) aerial photo of Swansea, showing Galgabba Point in the middle foreground.



SWANSEA LOCALITY MAP

Galgabba Point History

The first Land Grants in the Swansea area were in the early 1830's, in 1853 John Taaffe and his family selected a portion of land on the hill near Galgabba Point settling in 1855, by 1860 some 40 Chinese settlers were living to the north of Galgabba Point where they developed a cured fish business.

Much of the land around Galgabba Creek was unsuitable for development due to waterlogging, the creek was once home to a number of boat houses, the remnants of which are still visible as old cut channels on the southern banks of the creek.

Logging of the area is evidenced by old stumps upon the site, the swamp mahogany forest would have probably been logged for fencing and wharf construction, the wood being marine borer resistant. The Cabbage Tree Palm fronds were used by early settlers for making hats.

The swampy ground upon Galgabba Point undoubtedly saved this site from foreshore development, however this picturesque site appears to have suffered a history of neglect, dumping of all kinds of rubbish, large amounts of fill soils and regular arson have all taken their toll on the native vegetation of the site.

Lake Macquarie City Council purchased the site and it is now zone as (7b) *Environmental Protection (Flora and Fauna)* within the LMCC LEP the wetland area is scheduled as a *State Environmental Planning Policy No. 14 Wetland and Swamp Forest*, the site is also listed as an *Endangered Ecological Community* under the *Threatened Species Conservation Act 1995*.

Aboriginal Culture and Heritage

Awabakal Aborigines were attracted to the area because of the availability of seafood. Their activities included bark canoe racing down the channel. In 1971 a midden was uncovered while clearing for housing near Swansea Heads. An archaeological excavation in 1972 revealed that this was a very old campsite, being carbon-dated as 7,800 years. Human remains were discovered, many stone implements and also food remains which enabled the researchers to reconstruct the diet of the inhabitants.

By 1870 the areas' Aboriginal population had been reduced considerably. One family: Black Ned, Margaret (his wife), Ellen and William Henry (their children) had a reserve set aside for them in 1871. It is now known as Black Neds Bay. Margarets Bay, off Galgabba Point is named after his wife.

Margaret, had been taught by Threlkeld as a child. She died in 1900. Some Awabakals outlived Margaret, including Black Adam who was blind in later years and lived in a slab hut at Black Adams Flat, Swansea South, until his death in 1940. In the period 1900 to 1920 some aborigines lived in makeshift huts at Cams Wharf and along the old railway line between Swansea and Caves Beach.

Members of the Bahtabah Local Aboriginal Land Council represent Aboriginal interests in the area.



Possible remains of an Aboriginal midden at Galgabba Point.



Fifteen Trees

Fifteen Trees is playing a local part in the global green movement.

Many of us are now switched into green habits. We turn off appliances at the wall, we aim to catch public transport more often, we take our own bags to the supermarket and many of us are now choosing to be vegetarian (if even only for one day a week, eg 'meatless Mondays').

We are aware of the 'reduce, reuse and recycle' campaign. We don't litter, we regift (shhh) and some of us try to not buy anything new in October to help slow down our consumer drive. These are small endeavours looking to make a difference to the future of our planet.

Through your donation, Fifteen Trees can distribute trees to community groups and landowners for planting. These groups have been looking after our native heritage for generations.

Director Fifteen Trees – Colleen Filippa

Offset your small to medium car in Australia. From just \$49.50 per year 15 Trees will carbon offset your car by planting fifteen trees to collect your car's carbon emissions. When you carbon offset your car or flight with Fifteen Trees, you get to see exactly where your trees have been planted and you directly support our rural environment and communities.

Offsetting Carbon Emissions in Lake Macquarie

Kerry Palejs the CEO of MAS National (Making Apprenticeships Simple) has carbon offset her entire fleet of 30 cars with Fifteen Trees. As a result, 450 trees were donated to the Galgabba Landcare Group for planting in the Lake Macquarie region of NSW. Kerry's direct action on climate change will make a huge difference to the region, particularly as the trees mature. Below is a letter from the Landcare Coordinator.

Dear Colleen

On behalf of the Galgabba Landcare Group I would like to take this opportunity to thank you and your sponsor for the contribution of Carbon Offset trees for planting in this reserve. The great works carried out by Landcare groups is often limited by the availability of resources and funding. The trees provided by your organisation allowed for the weeding and replanting of a significant area of the reserve. The area worked would not have hoped to see





Black Swans *Cygnus attratus* at Margarets Bay

revegetation commence so quickly without your support.

The Landcare group operating on Galgabba Point are thrilled to have had such unexpected boost and the planting of these trees has helped the environment and will continue to do so long into the future.

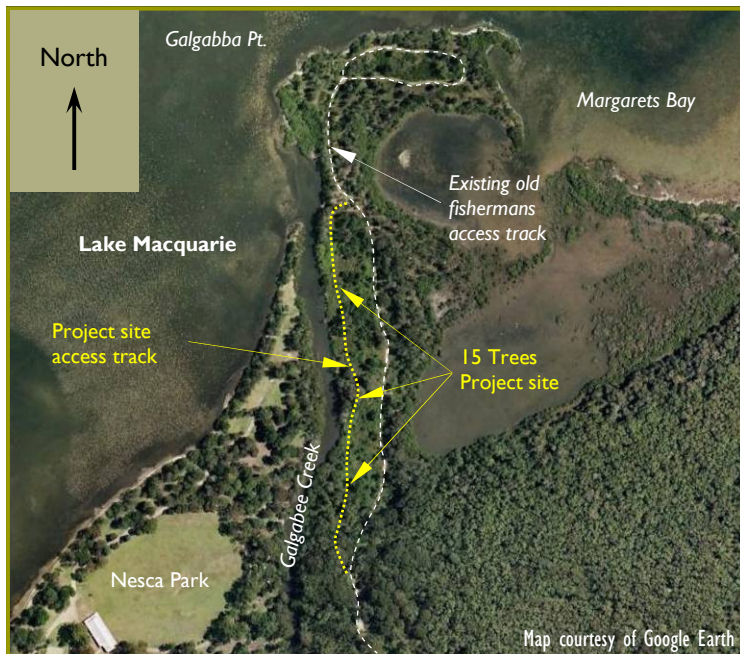
Keep up the good work!

Jason Harvey , Landcare Coordinator (LakeMacquarie City Council).

Galgabba Point Landcare

Galgabba Point Reserve is a significant bushland remnant with several Endangered Ecological Communities:

- Endangered Ecological Community- Saltmarsh
- Endangered Ecological Community- Swamp sclerophyll forest on coastal floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions (formerly Sydney Coastal Estuary Swamp Forest Complex),
- Endangered Ecological Community- Swamp Oak Floodplain Forest, and
- Endangered Ecological Community- Littoral Rainforest species in small pockets rather than as a distinct community)



GALGABBA POINT SITE MAP



Galah *Cacatua roseicapilla* sitting in a tree at Galgabba Point

Also a number of endangered or threatened species of flora and fauna: have been sighted at Galgabba Point:

- Regent Honey Eater,
- Swift Parrot,
- Powerful Owl,
- Masked Owl,
- Sea Eagle,
- Osprey,
- Squirrel Glider

The majority of the site has diverse vegetation communities with intact vegetative structure, but, before the Landcare group began working, significant disturbance issues, such as dumping and inappropriate access. Galgabba Point Landcare group, under the guidance of their team leader, Sharon McCarthy, have been working with passion and dedication for approximately eleven years to restore the environmental integrity of this important Lake Macquarie City Council Reserve.



Powerful Owl *Ninox strenua*
(Illustration: Sharon McCarthy, Galgabba Landcare)



Regent Honeyeater *Zanthomiza phrygia*
(NSW Threatened Species Image: Chris Tzeros)



Osprey *Pandion haliaetus*
(NSW Threatened Species Image: Ted Shimba)



Masked Owl *Tyto novaehollandiae*
(NSW Threatened Species Image: Dave Watts)

Fifteen Trees funding for Rainforest Enrichment Planting at Galgabba Point

Fifteen Trees funding, through Lake Macquarie Landcare, has allowed Hunter Indigenous Plants to provide 450 trees for Galgabba Point Landcare to plant on part of their site. The Project site is on the northern bank of Galgabbee Creek. On the southern bank of Galgabbee Creek, an important remnant of local rainforest occurs.

Nesca Park at Swansea South contains some very old and significant rainforest trees. Some of the large Rosewoods, Ribbonwoods, one large Hard Quandong, and one large Magenta Lillipilly would have to be over one hundred years old. It is important that best practice tree management should be undertaken to ensure the survival of these and the other rainforest trees of the Wallarah peninsula. A tree replacement program incorporating local provenance species propagation and planting should also be undertaken to avoid the eventual death of senescent trees with no new generation of trees to take their place.

Littoral Rainforest Trees and Shrubs of Nesca Park

Acmena smithii - Creek Lillipilly

Acronychia oblongifolia - Common Acronychia

Alectryon subcinereus - Native Quince

Alphitonia excelsa - Red Ash

Backhousia myrtifolia - Grey Myrtle



Alectryon subcinereus - Native Quince
(PlantNet Image: T.M. Tame)



Alphitonia excelsa - Red Ash, growing in the Galgabba Point Project area
(Image: D. Hilder)

Breynia oblongifolia - Coffee Bush

Cassine australis - Red Olive Berry

Cryptocarya glaucescens - Native Laurel,
Jackwood

Cupaniopsis anacardioides - Tuckeroo

Dysoxylum fraserianum - Rosewood

(Regionally Significant Plant)

Elaeocarpus obovatus - Hard Quandong

(Regionally Significant Plant)

Elaeocarpus reticulates - Blueberry Ash

Endiandra sieberi - Hard Corkwood

Eupomatia laurina - Bolwarra

Euroschinus falcata- Ribbonwood

(Regionally Significant Plant)

Ficus fraseri- Fraser's Fig

(Regionally Significant Plant)

Ficus rubiginosa- Port Jackson Fig

Glochidion ferdinandi- Cheese Tree

Guioa semiglauca- Guioa

Livistona australis- Cabbage Tree Palm



Dysoxylum fraserianum - Rosewood
(PlantNet Image: T.M. Tame)



Elaeocarpus obovatus - Hard Quandong
(PlantNet Image: T.M. Tame)



Euroschinus falcata - Ribbonwood
(PlantNet Image: T.M. Tame)



Ficus fraseri - Fraser's Fig
(PlantNet Image: T.M. Tame)



(Regionally Significant Plant)

- Melicope micrococca- White Euodia
- Myoporum acuminatum- Mangrove Boobiala
- Pittosporum revolutum- Rough-fruited Pittosporum
- Pittosporum undulatum- Sweet Pittosporum, Native Daphne
- Rapanea variabilis- Muttonwood
- Sarcomelicope simplicifolia- Yellow Lillipilly
- Scolopia braunii- Flintwood
- Synoum glandulosum- Scentless Rosewood
- Syzygium oleosum- Blue Lillipilly
- Syzygium paniculatum- Magenta Lillipilly



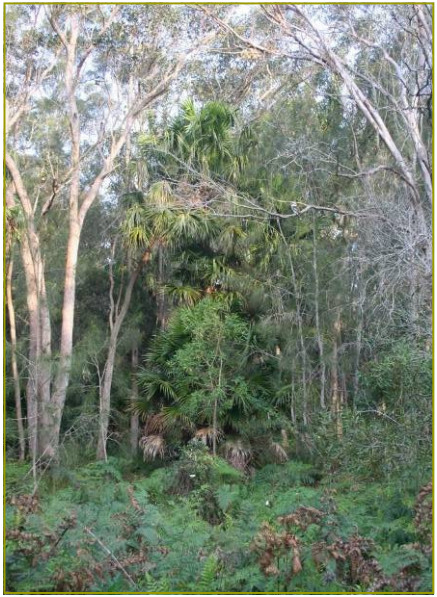
Scolopia braunii - Flintwood
(PlantNet Image: T.M. Tame)



Syzygium paniculatum - Magenta Lillipilly
(PlantNet Image: T.M. Tame)

(Threatened Species)

The assemblage of tree species is consistent



Livistona australis - Cabbage Tree Palm, growing in typical Swamp Oak forest at Galgabba Point.
(Image: D. Hilder)

with the Endangered Ecological Community: Littoral Rainforest (although much of the natural mid-storey and understorey has been lost at Nesca Park through land use as a caravan park).

A method of ensuring the survival of Nesca Park's rainforest remnant's genetic stock is to incorporate trees propagated from Nesca Park seed into the planting of the Galgabba Point Landcare group on the opposite bank of Galgabbee Creek.

The Landcare group had already cleared a site on the northern bank of Galgabbee Creek, and established a mulched pathway through the site. One year on, this site is regenerating with some rainforest species (*Glochidion ferdinandi* Cheese Tree, *Elaeocarpus obovatus* Hard Quandong, and *Duboisia myoporoides* Corkwood, for example), and has a shelter covering of *Acacia implexa* Hickory Wattle.



Glochidion ferdinandi - Cheese Tree (Habit)
(PlantNet Image: T.M. Tame)



Elaeocarpus obovatus - Hard Quandong (Leaves & Fruit)
(PlantNet Image: T.M. Tame)



Duboisia myoporoides - Corkwood (Leaves)
(PlantNet Image: T.M. Tame)





Rhodomyrtus psidioides - Native Guava (Leaves)
(PlantNet Image: T.M. Tame)



Maclura cochinchinensis - Cockspur Thorn (Leaves)
(PlantNet Image: T.M. Tame)

There are also some Regionally Significant Species on this site already- *Maclura cochinchinensis* Cockspur Thorn, and *Rhodomyrtus psidioides* Native Guava.

The planting has incorporated trees propagated from indigenous rainforest trees of the Wallarah Peninsula, and provided by Hunter Indigenous Plants.

As this site is a Lake Macquarie City Council Reserve, the management of the site to protect the rainforest species is assured.

Carl Fulton

Landcare Vegetation Officer



September 2011: Path leading into project area, rainforest understorey planting indicated by pink marker tape.

Landcare in Lake Macquarie

Landcare activities in Lake Macquarie are supported by the Lake Macquarie Landcare Network. The Network includes Lake Macquarie Landcare Incorporated (LMLN) and thousands of dedicated and committed community volunteers, and the Lake Macquarie City Council (LMCC) which provides project support through the Landcare Resource Office (LRO). The LRO and the new Landcare Resource Centre (LRC) provides resources, expert advice, bush regeneration assistance, and other professional support to assist landcarers to undertake natural resource rehabilitation and maintenance on sites throughout the city.

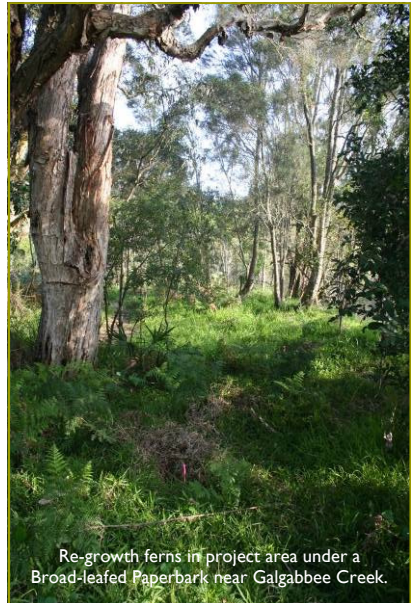
If you would like to get involved in Landcare in Lake Macquarie or would like more information please contact the LRO on **4921 0392** or email lro@lakemac.nsw.gov.au or visit www.lakemacquarielandcare.org

References

- History of Swansea, Lake Mac Infohunt.
www.lakemac.infohunt.nsw.gov.au/library/lhist/suburb/Imp&p/Swansea
- Plants & line drawings - Australian National Botanic Garden/PlantNet
www.plantnet.rbgsyd.nsw.gov.au



Acacia implexa - Hickory Wattle at Galgabba Pt.

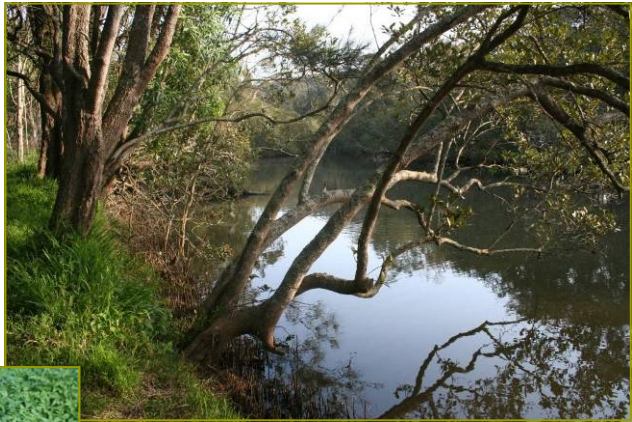


Re-growth ferns in project area under a Broad-leaved Paperbark near Galgabee Creek.



Project site with,
 (Left) *Casuarina glauca* Swamp
 Oaks,
 (Centre) *Exocarpos cupressiformis*
 Native Cherry, and
 (Right) *Melaleuca quinquinervia*
 Broad-leafed Paperbark

Galgabbee Creek bank with
 Grey Mangroves - *Avicennia
 marina* growing on the mudflats
 and Swamp Oaks - *Casuarina
 glauca* on the creek bank



"Fifteen trees" Cheese Tree - *Glochidion ferdinandi*.

Regrowth Tuckeroo - *Cupaniopsis anacardioides*.

Resources

Publications such as the *Lake Macquarie Coastal Planting Guide* (LMCC), *Attack of the Killer Weeds* (Coastcare), *Weeds of the Hunter and Central Coast* (Weeds Committee Information Booklet), *Foreshore Stabilisation and Rehabilitation Guidelines* (LMCC) and *Native Plant of Weed, Pick the Difference, Volumes 1 & 2* (Ann Loughran) and *Restoring Natural Areas in Australia* (Robin Buchanan), are some of the documents used by volunteers throughout Lake Macquarie in protecting our natural areas.

In addition, the Community Support Information Pack produced by Lake Macquarie City Council and the Hunter Central Rivers Catchment Management Authority is available in limited hardcopy and CD format covering a wide range of resources used in natural resource management in Lake Macquarie.

Contacts

If you wish to know more about this and other projects in Lake Macquarie, please contact the Landcare Resource Centre on **4921 0392**.

LML's website www.lakemacquarielandcare.org can provide links to newsletters, environmental programs, grants, Landcare, weeds and trees.

Images courtesy of:

Lake Macquarie Landcare, LMCC & Belmont Lagoon Committee Landcare

Denis Hilder of Landcare Resource Centre 2011

Weeds: *Attack of the Killer Weeds - Land & Water Conservation Pub. 1998*



**LAKE MACQUARIE
RAINFOREST SITE**

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