

Project Background

The COG project was carried out in two stages over a four year period between 1998 and 2002, and involved Landcare groups from throughout the Mary River catchment. While each group operated independently on projects, regular field trips and meetings encouraged sharing of resources, knowledge and experiences gained in the field. All groups used a common system of project reporting and site monitoring to streamline reporting and maximise the value of data collected.

The project identified areas of strategic ecological significance, then assisted landholders within these critical zones to protect, enhance, extend and link habitat.

Barung employed a Project Officer for two days per week with a small budget for on-ground work, undertaken on more than 70 properties in the Upper Mary River catchment.

Rehabilitation work focussed on creek banks to address water quality issues and improve in-stream habitat. Any changes in the upper catchment will be felt downstream, where endangered species like the Mary River Cod, Mary River Turtle and Dugong struggle with survival.

More than 30 landholders in the Bridge Creek sub-catchment were involved in the COG project, many on adjoining properties.

This case study highlights a significant rainforest remnant in the lower Bridge Creek area, immediately upstream of Lake Baroon (the water supply for much of Caloundra City and Maroochy Shire), and adjacent forest reserves (see map).

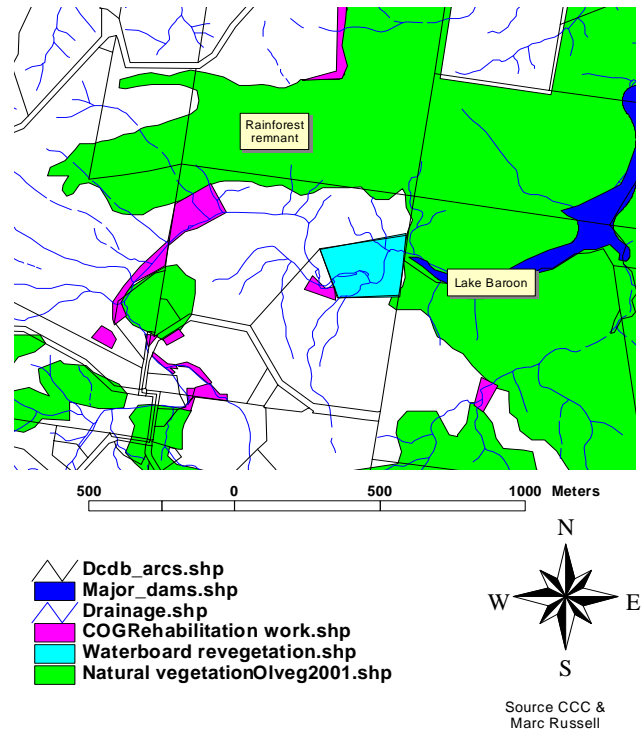
Rainforest habitat of this quality and size (50 ha) is very rare, especially in the Sunshine Coast region which has a rapidly escalating population. The remnant is situated on a steep escarpment that naturally excludes cattle from much of the forest.

The landholder, a dairy farmer, is committed to protecting the forest with which he grew up. He and adjacent landholders erected fencing and established vegetation to protect, enhance, extend and reconnect the remnant with both the creek and nearby regrowth areas (see map and aerial photos).

Upstream are other patches of rainforest and wet-schlerophyll, on which project participants carried out similar ecological work.

The need to diversify since dairy deregulation has led the dairy farmer to build Ecotourism style accommodation which has become an important component of the property income. The value of this relatively pristine habitat becomes even more apparent as it assists in attracting visitors to the cottages.

Lower Bridge Creek



Several threatened species exist in the remnant including: *Macadamia ternifolia* (Maroochy Nut), *Syzygium hodgkinsonia* (Red Apple), *Romnalda strobilacea* and *Austromyrtus inophloia* (Thready-bark Myrtle). A good population of a newly discovered species, *Medicosma sp Mt Mellum*, is also present.

A significant population of the vulnerable Richmond Birdwing Butterfly has been noted within the rainforest remnant, in the form of eggs, larvae and adults. Vines of great size and age of the butterfly host plant, *Pararistolochia praevenosa*, proliferate in some areas making this remnant a core breeding site for the region.

Project Objectives

To

- ◆ protect, enhance, extend and revegetate disjunct corridors
- ◆ identify high priority vegetation links
- ◆ facilitate community and local government interest, involvement and ownership of corridor projects
- ◆ standardise project site evaluation and monitoring.
- ◆ effectively coordinate, manage and implement the Mary River Consortium projects.

Project methods

- ◆ Priority sites were identified and flora and fauna surveys carried out to identify Regional Ecosystems, the presence of rare and threatened species and threats such as weed invasion. The Barung component of the COG consortium was active between Bellthorpe and Mapleton - both recognised biodiversity hotspots.
- ◆ Landholders in critical areas were contacted to determine interest in project participation.
- ◆ Work was carried out to protect, enhance, extend and link habitat on over 70 properties (Barung component only). Much of the work focussed on fencing and revegetating creek banks to maximise outcomes for terrestrial habitat, in-stream habitat and water quality.
- ◆ Approximately 40 000 trees were planted and 12 km of fencing erected to protect, enhance, extend or link important ecosystems. Rehabilitation works were undertaken along 7 km of creek bank in the project area.
- ◆ Site specific oral and written advice was given to project participants regarding ‘best practice’ methods for weed control, revegetation, regeneration, and habitat protection and enhancement. On-site meetings were held with council staff on several sites to discuss ongoing management of council reserves and surrounding private lands.
- ◆ Public awareness and involvement increased through workshops, field trips, public tree plants, presentations, articles and educational activities.
- ◆ More than 1 200 volunteers planted, fertilised, mulched and watered over 13 000 trees during Barung’s three major “Bridge the Gap” Treeplants. These have now become an annual Barung tradition.
- ◆ Labour sources included: private landholders; Green Corps, Green Reserve, Work for the Dole and ACTV / CVA participants; Council Officers; school students; Maleny Community Credit Union and ANZ Bank staff; and other community volunteers.
- ◆ Ground-truthing discovered many inaccuracies in available GIS data. Recommendations were made for council to establish a system where reputable field officers can feed in new information.
- ◆ Various project and site monitoring methods were used, including a nesting box trial. Ryegrass ‘living mulch’ and species frost tolerance trials also had positive outcomes.
- ◆ Support for on-ground projects by several smaller environmental groups included technical advice, written information, educational workshops, funding applications and/or labour provision for on-ground projects. These groups included: Lake Baroon Catchment Care Group; Mary Cairncross Scenic Reserve Bushcare Group; Friends of Aplin Road; Upper Bridge Creek Catchment Group; Bellthorpe Progress Association (Bellthorpe Environmental Reserve Project); Booroobin Bushcare Group; and Queensland Wildlife Preservation Society (Stanley River Park Project).

Project Partners

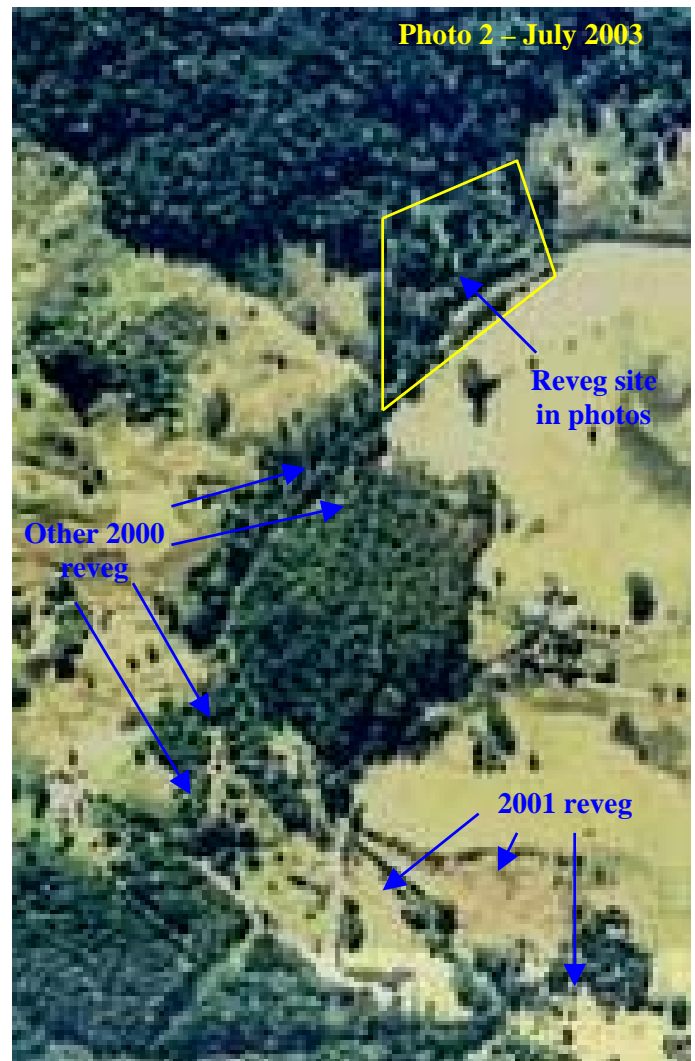
Various stakeholders contributed to the project’s success:

- Initial funding was provided by the Natural Heritage Trust through project coordinator, Greening Australia.
- Additional funding was received from BHP, Caloundra City Council and Maleny Community Credit Union.
- Other project partners included: Qld Dept. Natural Resources & Mines; Qld Parks & Wildlife Service; Caloundra/Maroochy Water Supply Board; Sunshine Coast Environment Council; Mary River Catchment Coordinating Committee; Mary River Cod Project; Lake Baroon Catchment Care Group; World Wildlife Fund for Nature; University of Sunshine Coast; Land For Wildlife; Mary Cairncross Volunteer Group; The Wilderness Society; Qld Herbarium; and individual community members.
- Landholder contributions exceeded all other financial and in-kind support combined.

Below: 400 volunteers planted, fertilised, mulched and watered 5 000 plants then kicked back for an afternoon of entertainment at our first “Bridge the Gap” event. If the community is focussed on positive action in strategic areas the outcomes can be overwhelming.



Above: Dense planting of *Lomandra hysterix* (Creek Mat Rush), along with trees and shrubs, have helped stabilise the bank seen in the previous photo. After just 5 years, banks have better vegetation cover, are generally not as steep and positive changes in the stream bed have been observed.



Above:

The aerial photos above show changes over a five-year period on some of the project sites in the lower Bridge Creek area. Considering on-ground work in this area

did not commence until early 2000, improved linkages and habitat expansion are pronounced. A further image of the same site in 10 years time will show well-established revegetation.

What did we learn?

- ◆ At least one case study must be planned and budgeted for from the beginning of each project.
- ◆ Landholder involvement and commitment is essential at every stage of the project. The level of success on individual properties is directly related to the level of landholder ownership, especially in the early stages.
- ◆ The difficulty of the site (heavy frost and floods) has given us the opportunity to fine-tune species selection, planting seasons etc and this information can be passed on to others.
- ◆ The value in being part of a consortium, with opportunities to exchange information and share resources between projects.
- ◆ Leaving Wild tobacco on revegetation sites in the early stages offered extra protection for young trees and provided instant root systems in the creek banks. Wild tobacco and other short-lived species such as *Acacias* may need to be removed after time, if competing with later phase species or if they degenerate and threaten fences.

- ◆ Focussing resources into strategic areas enables us to optimise ecological outcomes.
- ◆ Cattle can cause immense damage in young revegetation sites, so fences must be built to the highest standard possible. Crash grazing after establishment (eg after 3-5 years) has proven beneficial in reducing weed growth, especially for legume vines like *Desmodium*. The key is to move cattle out before they damage native vegetation.

Doing it differently next time

Projects must be a minimum of three to five years.

COG Stage 1 was a little over two years, and Stage 2 lasted just 12 months. The earlier project sites were generally more successful as they received support over a longer time period. Unfortunately funding bodies usually require new projects and ideas whenever new applications are made.

As Barung's projects are already focussed on strategic areas, we really need to stage projects so that we can build on small successes to guard against larger under-resourced failures.



Late 1999



June 2005

Above: Reveg site marked on aerial photo 2 (previous page). Unstable slopes were difficult to manage and provided little grazing as they were dominated by Mistflower, Bracken fern, Groundsel and Blady grass. Only a narrow 5-10m strip on the

productive flat was fenced to keep stock from the creek and create a buffer. Early in the project, an annual Ryegrass cover crop out-competed most weeds, while stabilising and shading soil, providing biomass, food and habitat. Fast growing colonisers achieved early canopy cover.

Beyond the project

The COG project continues as a source of learning and inspiration for people from Australia and all over the world.

- ◆ The Project received a Biodiversity Initiative Award from Sunshine Coast Environment Council, and a National Bank Community Awards commendation (and \$1 000).
- ◆ Sunshine Coast University students incorporate annual ecological monitoring of the site in their curriculum.
- ◆ Presentations to visiting delegations and at conferences continue beyond the project.
- ◆ Caloundra City Council has part-funded a generic Barung Reveg Officer for the last 2 years, to continue educational and on-ground work. CCC field officers and contractors now manage hinterland reserves including sites identified during the COG Project.
- ◆ The COG success encouraged us to undertake a Threatened Species Network project in the upper Stanley River catchment and a Coxen's Fig Parrot Recovery project in the upper Mary River catchment.
- ◆ While some properties did not achieve the level of success hoped for, others far exceeded project aims. Many landholders will continue work for years to come.

Below: Adjacent rainforest provides a diverse seed bank. Species such as *Guoia semiglauca*, *Cryptocarya triplinervis*, native ferns and grasses are regenerating in the favourable conditions under colonisers. Some Privet, Camphor and moth vine are also germinating, so ongoing weed control is essential to ensure native species dominate.

