



Araucaria Sanctuary Plan 2022-2024

Araucaria Sanctuary is located at Rock Valley, NSW which is Wiyabal territory and part of the Bundjalung Tribal Lands. We acknowledge these traditional custodians and recognise their continuing connection to land, water and community, paying respect to Elders past, present and emerging.

Araucaria Sanctuary is currently owned, managed and cared for by Don Metcalfe and Renata Phelps. As **full-time volunteer** wildlife carers we are dedicated to conserving, preserving, rehabilitating and building biodiversity on this 100 acre property.

We particularly specialise in the rescue and care of marsupials, with a focus on macropods, possums, gliders and other small mammals. We are members of WIRES, Friends of the Koala and Jiggi Landcare.

LONG-TERM VISION

Our long-term vision for Araucaria Sanctuary is to create a rich and biodiverse carbon-positive ecosystem, forming a haven for existing and released wildlife and supporting increases in threatened fauna and flora species.

BIODIVERSITY VALUE

Araucaria Sanctuary is of high conservation value (HCV), providing key habitat for threatened flora and fauna species. As a **Forest Red Gum grassy open forest zone**, we have a number of old-growth Forest Red Gums, in addition to remnant Grey ironbark, Red cedar, Hairy rosewood, White beech, Plum pine, Green bolly gum, Forest sheoak, Peanut tree, Native coral tree, and Bennet's ash. The property also features large stands of old growth Hoop pine, Flooded gum, Forest red gum, Tallowwood, Brushbox and Red Ironbark, and sizeable thickets of Thorny pea around the creek flats and Hairy Joint Grass in open gully areas across the property. We even have some naturally occurring Finger Limes!

Enhancements to Vegetation to 2021

Although the land was mostly cleared prior to our purchase, over the past 25 yrs we have focused on re-foresting approx. 20 acres (approx. 7000 trees); fencing and rehabilitating the riparian zone of the creek (approx. 5 acres); and on promoting regrowth in areas of existing bushland (steep hillsides – approx. 20 acres). Plantings on the West and Central zones of the property (Zones A and B - see map) are predominantly cabinet timber species (including some rare/endangered species) together with eucalypt corridors on either side of the boundary. A large established planting in the centre of the property includes predominantly eucalypt with endemic Hoop, silky oak and Flindersia species.



In 2018 we removed agisted cattle from the 80 acre area of (previously) grazing land (50 acres) and regenerating steep hillside (30 acres), in order to engage solely on regeneration activities. From 2018-2021 we have been focused on rehabilitation of cattle damaged areas, including overall soil improvement and ground coverage to minimise weed re-growth.

In 2019 we received a **Lismore City Council Rural Landholder Initiative** grant which provided invaluable support for weed control in the riparian zone and for us to plant around 1000 trees (although drought conditions at the time limited our overall goals that year). Our thanks to Philippe Binetruy for his leadership in this project.



Riparian zone following LCC Rural Landholder Initiative grant

With **funding from Biodiversity Conservation Trust (BCT) 2019-2022** we have been conducting weed control activities on the West facing hill, working across from the northern side of the property. This area contained a large outbreak of Giant Devil's Fig as well as other weeds. We acknowledge and greatly appreciate the work of Dan Riordan on this project in addition to his maintenance of other areas of the property (self-funded).

We have **participated in a number of research projects** focused on fauna and flora on the property, including Laura White's PhD (Southern Cross University) on **Hairy Joint Grass** (*Arthraxon hispidus*). White's study identified a flourishing population of this listed threatened species (see map).

In 2021 we are participating in a study of invasive **Lantana camara** complex (its population genetics) conducted by Pat Lu-Irving, Research Centre for Ecosystem Resilience, Royal Botanic Gardens, Sydney.



A highlight for us occurred in 2021 with our involvement in a **Conservation Volunteers Australia (CVA) tree planting**, funded through NRMA. Over 1200 trees were planted in March 2021, with the amazing input of the CVA coordinators (Shae and Kelly) and the assistance of a small team of volunteers on the two days of planting. Maintenance work has been continuing throughout 2021 and a CVA workshop focused on glider species and habitat creation is planned in late 2021.



CVA planting days



Drone footage of the CVA planting
(see our News Blog for the footage)

Enhancements to Fauna to 2021

Our early tree plantings and wildlife caring activities have enormously enhanced biodiversity across the Sanctuary, with a significant increase in fauna numbers and variety, including a number of threatened and endangered species.

The area is **known to have a population of squirrel gliders**, providing a habitat corridor to the Jiggi valley population. We are also releasing these gliders and building habitat boxes to further build the population.

In 2017 we became aware of the first known occurrences of koalas on the property, including their regular use of one of our established tree plantings. Although not yet sighted, they are still regularly heard. Scratch marks were identified by Uni. of Qld researcher in 2019 and audio recordings have been documented through the study of Koalas in Private Native Forests conducted by the Forest Science Unit of DPI NSW in 2020 (with follow up participation in 2021). **We also sighted our first Womoo Fruit-dove in 2017** and goannas returned to the area in 2016.



Squirrel Glider joey - raised and released at Araucaria



In 2018 we began releasing red-necked pademelons at the Sanctuary. While this species would have historically frequented the area, land clearing rendered the species locally extinct. However with a population at Bungabbee (3-4km away) and enhanced habitat on ours, and adjoining properties, the time was considered right to “rewild” pademelons in the area.



Feathertail Glider - photographed 2021



Numbers of swamp wallabies have increased



Long-nosed Bandicoot - raised and released at Araucaria

In the past 5 years we have built and installed more than 30 habitat boxes for possums, gliders and hollow-dwelling birds as well as ground habitat sites (hollow logs, rock and log piles) for animals such as bandicoots. Through our WIRES role we are also building numbers of Red-neck and Swamp wallabies, Mountain and Ringtail possums,

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Squirrel, Sugar and Feathertail gliders, bandicoots and other small mammals, and with increased habitat in future we hope to diversify this further. We are continuing to focus on these habitat-creating activities



Examples of habitat boxes recently constructed and erected in trees planted by us over the past 20+ years.

GOALS FOR 2022-2025

Inspired by these successes and progress, as of 2021 our 3 year plan (2022-2024) is now to focus on:

- a) Pursuing a Conservation Agreement (application in progress)
- b) Weed control in existing regrowth areas on the western slopes, ideally with continued support funding (e.g. BCT funding)
- c) Reforesting two zones of flat open paddocks (Forest Red gum remnant area), ideally through funded grants (eg CVA and/or Bangalow Koalas)*
- d) Revegetating wet and dry gullies and linking these to other plantings to enhance wildlife corridors across the property, ideally through funded grants (eg CVA and/or Bangalow Koalas)
- e) Maintenance of weed eradicated areas in riparian zone
- f) Maintenance of 2018-2021 Tree planting areas (including slashing, spraying, hand weeding)
- g) Continuing removal or weeds and exotics from western (residential) side of property
- h) Habitat box building and installation in existing reforested areas
- i) Control of feral pests including cane toads and foxes.

*Note that the Eastern side of our property is divided by a main gully that is easily passable in drier weather, but not long periods of wet weather. While we intend to plant in BOTH the North and South zones, the timing of each planting will depend on the weather conditions at key times.

BENEFITS OF THE PLAN

The benefits of this long-term plan include:

- Widening of wildlife corridors and diversification of species will connect isolated paddock trees to hillside regrowth and riparian zones;
- Improved vegetation connectivity linking the ridgeline to the riparian zones, will enhance wildlife corridors between the Jiggi/Georgica valley and Bungabee State Forest area (see Image 2)
- Increased flora biodiversity through plantings of mixed endemic species, including eucalypts interspersed with flowering and fruiting species (Callistemons, Syzygiums, Hoop pines, understory plants) will enhance habitat for koalas, possums, gliders and flying fox populations and provide shelter, food and nesting sites
- Retention of fallen trees and branches and building and erecting of habitat boxes will create enhanced habitat for diverse wildlife (birds, animals, reptiles, amphibians)
- Decrease in weed species (particularly Devils fig, Camphor laurel, Lantana, Broad-leaved Privet), will minimise competition for native species and facilitating movement of fauna such as koalas.
- Focused eradication of understory weeds such as Lantana will help minimise Bell Miner Associated Dieback in future. Although Bell Miners have not yet “arrived” at our property, they are in adjoining valleys and are moving in our direction.
- We intend to leave “grassy glades” to support grazing animals such as red-necked wallabies.

CHALLENGES

- Our wildlife care activities mean it is difficult to get large blocks of time working on the property between scheduled feeds. Depending on numbers of animals in care, our time can become limited.
- Weed regrowth in some areas of the property have been concerning and difficult to keep up with, particularly in previous wet years. In particular, Devils Fig, Glycine and Siratro have become established in many areas.
- Extended wet periods make equipment access to the North side of the property difficult.

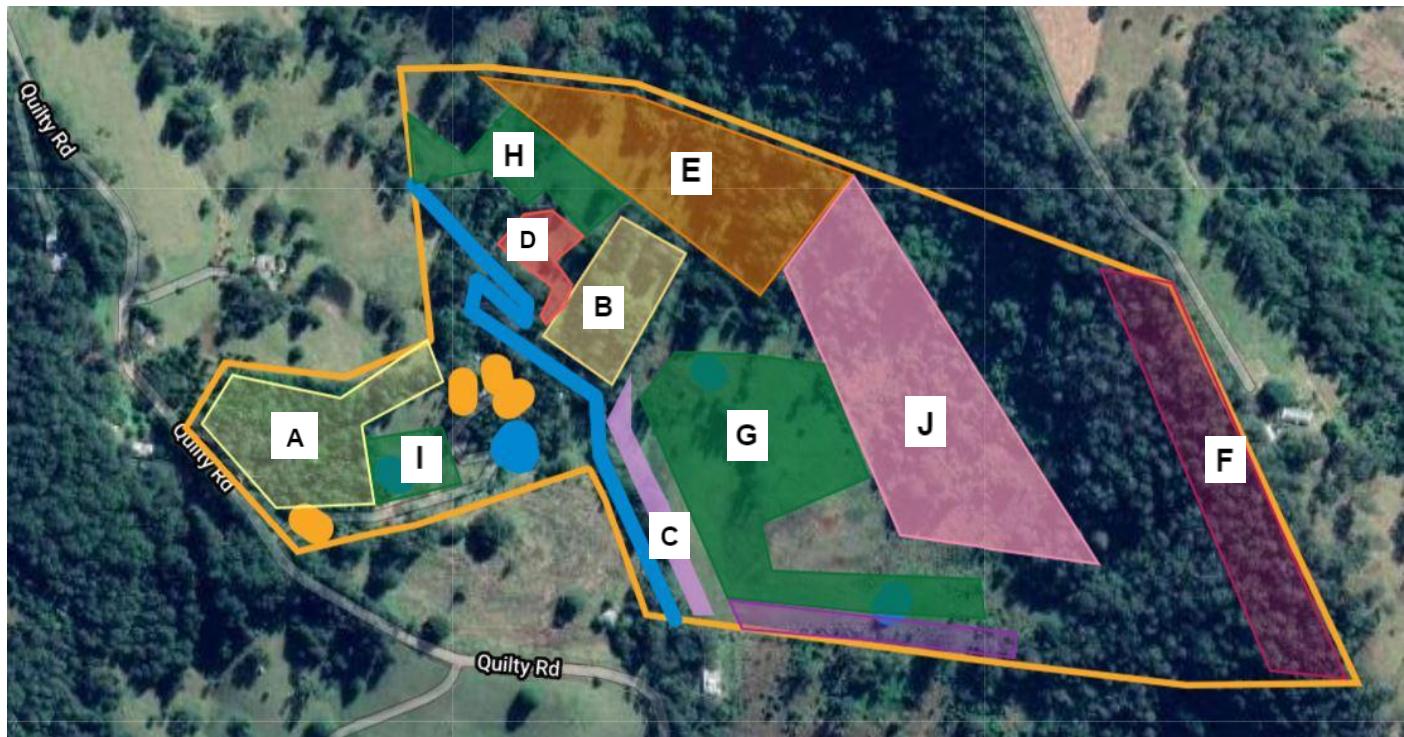
Despite these challenges we are more experienced, knowledgeable and better equipped than we were 15-20 years ago when we achieved significant reforestation goals. While our plan is ambitious, we are goal oriented, committed, enthusiastic and hard-working and spurred on by seeing our released joeys establish their home on our property and go on to produce generations of offspring. We want to provide the best possible habitat for them, and all the other wildlife that inhabit our land, into the future.

COMMUNICATIONS

We maintain a website, blog (“latest news”) and social media presence (Facebook and Instagram) to communicate to family, friends and fellow landcare and wildlife caring colleagues.

<https://araucariawildlifesanctuary.com.au/>

PROPERTY MAP



Key



Blue = Dams and Creek - Weed control and Bush Regen work in Riparian Zone funded by LCC 2018-19

Orange = Buildings

AREAS A and B = 20+ year old plantings

AREA C = 3 year old plantings (dark purple also includes 2 rows of 8 year old Eucalypts)

AREA D = 2021 Conservation Volunteers Australia (CVA) planting

AREA E = Weed control area funded by BCT - 2019-2021

AREA F = Weed control area (self funded - once annually)

AREAS G and H and I = Areas for proposed tree plantings

AREA J = Priority area for ongoing weed control (partially funded through BCT 2021-2022)

SPECIES SECTION FOR ZONES G, H and I

Based on species known to do well in our area, either in existing plantings or because they are endemic to our property)

Forest red gum, Tallowwood, Flooded gum, Brush box, Melaleuca (including quinquenervia for koalas); Hoop Pine, Callistemon, Silky Oak, local Acacia species, Moreton Bay Fig (as individual paddock trees, particularly in wetter areas), River Oak, Creek sandpaper fig, Syzygiums/Acmena/Lilly Pilly species, Water gum, White cedar, Plum pine, Black bean (incl. seed sown direct), Blue quandong (frost free creek areas), Bolly gum, Flindersias (Teak, Qld Maple, Cudgerie, Bennetts Ash), Red ash, Macaranga, Brown Kurrajong, Pink ash, Foambark, Glossy laurel, Bangalow palms, Banksias, Spear lily, Birdwing butterfly vine, Lomandras and Dianella