

Birdwing Butterfly Vine

(Pararistolochia praevenosa)

Propagation and Cultivation

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Background

Pararistolochia praevenosa is a native vine of sub-tropical rainforest and riparian vegetation of SE Qld and N. NSW coastal regions east of the Great Dividing Range.

It occurs naturally from sea level to about 600m elevation and along with the high altitude Mountain species *P. laheyana* are the exclusive host plants of larvae of the Richmond birdwing butterfly (*Ornithoptera richmondia*).

RBCN and numerous environmentally orientated groups are currently engaged in birdwing butterfly recovery projects that require mass propagation of *P. Praevenosa* birdwing vines (BWV), **but problems exist.....**

Food Plants

Larvae of the Richmond birdwing are dependent on two native rainforest vines: *Pararistolochia praevenosa* and *P. laheyana*



P. Praevenosa – Lowland species



P. Laheyana – Mountain species >600m

Propagation & Cultivation

- **Propagation from seed the main method**
- Cuttings are difficult to strike and slow to develop
- Tissue culture is currently being investigated
- Projects require 15,000 to 20,000 plants per year
- Seed availability erratic – big variation in fruit set year to year
- Pollination is very specialized – little known about pollinators.
- Seed viability unreliable unless very fresh
- Germination is notoriously slow – 2-9 months (or longer)
- Young seedlings (2-4 leaf stage) very susceptible to damp-off fungal problems
- Root system delicate and disturbance causes shock or death

How do we get around these problems?

- **Seed supply:** RBCN seed bank since 2016 managed by R. Bull. Ripe pods sent in by people with cultivated vines (native vines protected), seeds extracted, cleaned, dried and vac-sealed in foil sachets and stored in refrigeration.

Vac-sealed seed from 2017 still viable in 2021

- **2019 trial**

Planted	Germinated	Months
• 1 April	Sept	6
• 3 July	Sept	3.5
• 2 Sept	Nov	2
• 15 Sept 2020	Dec	2.5

- **Germination is temperature dependent**

P. praevenosa seed capsules

- Large seed capsules contain 70-90 seeds each.
- Fresh seed is slow to germinate, often taking 2-6+ months to emerge.



Preparation of Seed

Mush ripe capsules in sieve



Rub out soft tissues under running water



Clean seed of skin debris

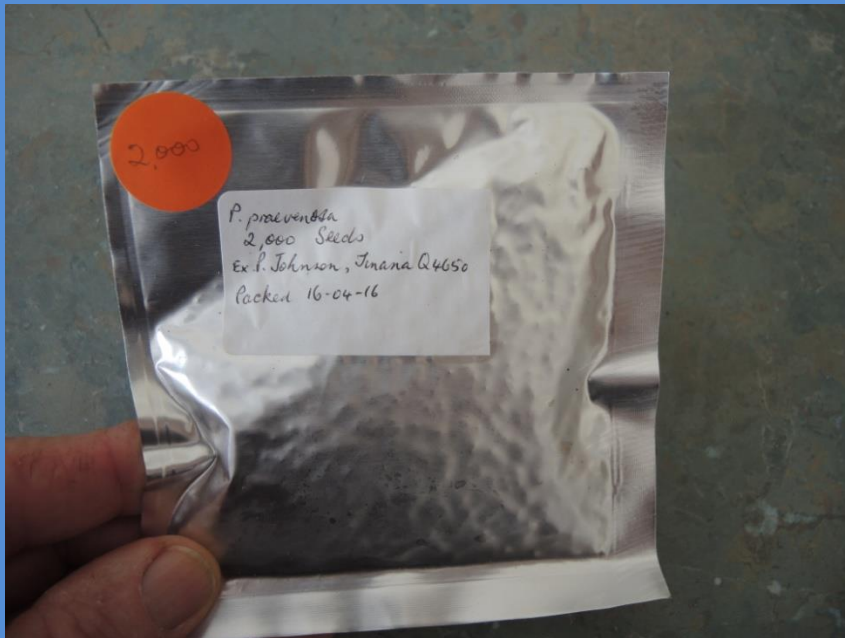


On tissue to dry 5-7 days in shade



Packaging & Germination

- Germinate seed in polystyrene broccoli boxes 2/3 full, with best quality seedling raising mix with high peat moss content and 10% washed river sand.
- Keep damp but avoid over-watering.
- Prick out seedlings at 2-4 leaf stage when tendril first appears and pot directly into 120-140mm pot with high quality potting mix.



Propagation & Planting

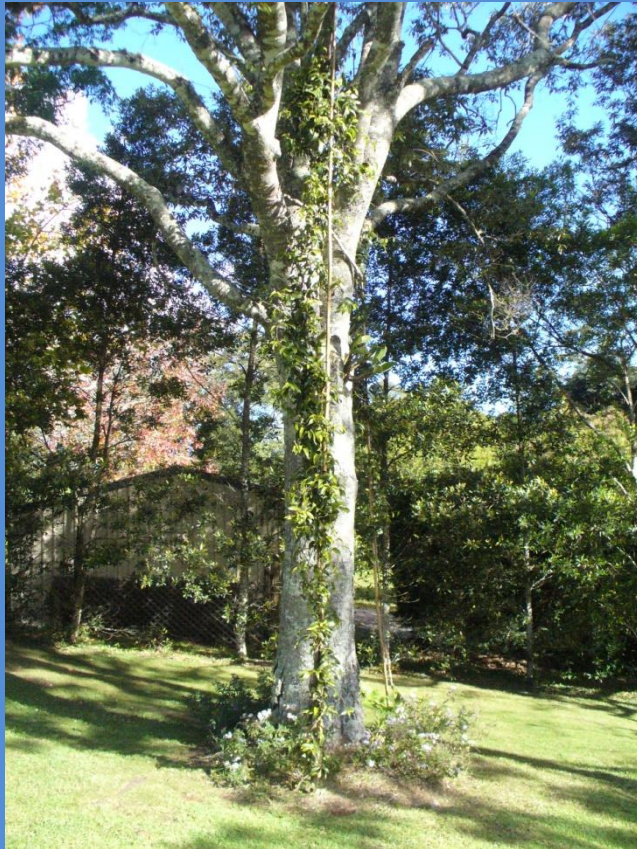


Narell McKenna,
Birdwing Forest
School &
student planting
vine in the
Guanaba Gorge

- Plant into minimum 120mm pots with 50-75cm stake and into field site when the vine has topped the stake.
- Semi-shade location and >1m from larger support tree with bamboo pole or cord to 1st branch in support tree.

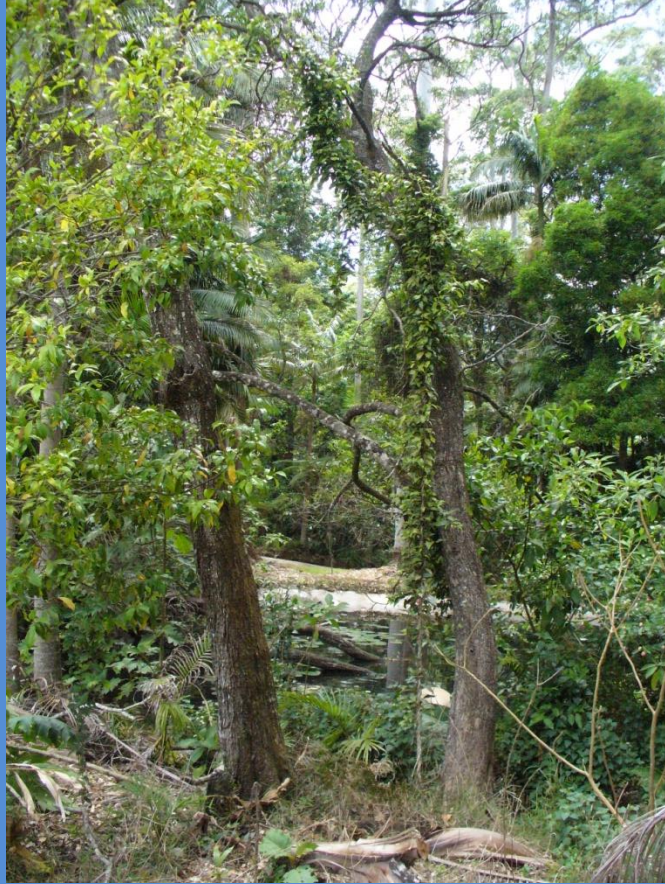
Planting location important

- Keep 1-1.5m away from base of BIG trees.
- Long, slender bamboo poles reaching overhead branches are ideal for vines to climb up. Twine or string is OK for smaller trees.
- Choose evergreen native tree species and plant where the vine gets shade. Good soil and moisture important.



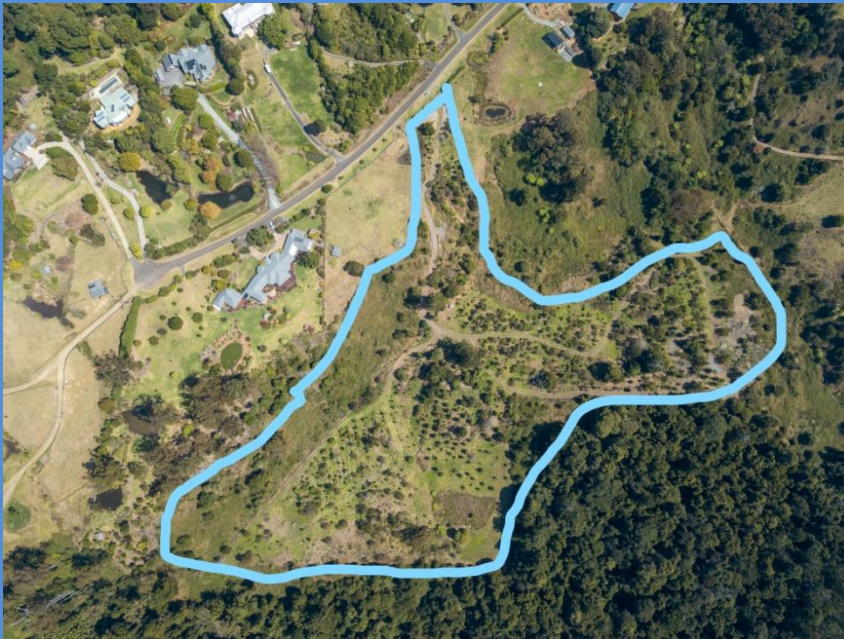
In suburbia, trellises and fences are suitable supports





Tamborine Mountain Landcare/ RBCN Shelf Road Project 2019-2021

10.5ha rainforest revegetation + 500 birdwing vines



At commencement 2019



March 2021, 30 vines on trellis &
470 in young rainforest trees

RBCN Seed Bank needs supplies of fresh, ripe seed pods for seed extraction.

If you can help, contact me or post them direct to:

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