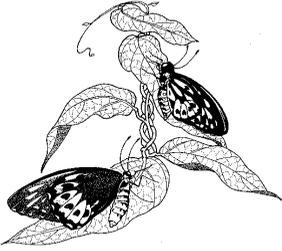


Newsletter of the  
**Richmond Birdwing  
Recovery Network Inc.**



Number 8, April 2007

\$4.00

ISSN 1833-86



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*Richmond Birdwing Recovery Network Newsletter* No. 8 April 2007 1

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The **RICHMOND BIRDWING RECOVERY NETWORK INC.** since it was launched in 2005, has promoted conservation of the Richmond birdwing butterfly *Ornithoptera richmondia*, its habitats and food plants. Membership of the *Network* is open to anyone interested in conserving the Richmond birdwing and other insects of conservation concern. The *Network* promotes liaison between interested community members, catchment groups and relevant local and state government authorities. The *Network* holds quarterly General Meetings, occasional Regional or Special Meetings and publishes quarterly, a Newsletter distributed to the members.

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## **PRESIDENT'S REPORT**

Looking back at the recent “butterfly season” the achievements by our RBRN Members and community participants have far outweighed the few disappointments – the latter mostly attributable to the prolonged drought. One disappointment has occurred on the Sunshine Coast where we have confirmed retreat of an old established breeding population from the Kin Kin Creek area and another from the eastern coastal strip near Coolum Beach. In most localities declines in densities of the “old growth” birdwing vines and the associated impacts of drought on the quality of vines have put serious pressures on local birdwing populations. However, we have seen the results of positive efforts made by Members and Community Groups towards as they plant more vines. There is firm evidence that this approach is a successful *Recovery Action* as we see birdwings re-establishing wherever the planted vines are sufficiently abundant to the north and south of Brisbane.

On the Gold Coast there is very good news with recent sightings of adults and eggs have been laid on vines at Burleigh Heads and Mount Tamborine, both being localities where birdwings had disappeared for many years. I have no doubt that planted vines are contributing to re-colonisation and early recovery of birdwings wherever local drought has not been too severe. There is not such good news from the centre of the birdwing's range nearer Brisbane where all native fauna and flora (and the residents of Brisbane!) are suffering from the worst drought since European settlement.

Thanks are due to our RBRN Corridor Coordinators for helping local community members, providing assistance with Workshops and mapping of vines, and for encouraging community awareness and enthusiasm. Birdwing workshops—on the Sunshine Coast in November at Mary Cairncross Scenic Reserve, and February at Eumundi, proved to be very successful. Plans are underway for birdwing Workshops at Noosa and Buaud Desert Shire

Sincere thanks on behalf of RBRN to the speakers, demonstrators and local Councils, and those who helped with the organization of the previous Workshops. All participants set very high standards for RBRN to continue at future events.

**Don Sands**

## **LETTERS**

### **MARY CAIRCROSS SCENIC RESERVE LAUNCHES ITS BIRDWING BUTTERFLY GARDEN**

**Mark Bonner**

I hardly know where to start with notes to record such an exciting Field Workshop and the informative field trip on Wednesday 14<sup>th</sup> March 2007, at Maleny. At this Workshop Mary Cairncross Scenic Reserve (MCSR) launched its future plans for a Richmond birdwing Butterfly Garden. Our Richmond birdwing Recovery Network Corridor Coordinator and 'local' Ray Seddon, kindly opened up his property at Lower Mt Mellum for a visit by our group of volunteers, and gave us two hours of inspirational information on the threatened Richmond birdwing Butterfly. Ray, accompanied by Dr. Don Sands, President of the RBRN and Entomologist. Don is recognised as the leading authority on the study and recovery of this beautiful butterfly. Don is also working on the Southern Pink Underwing Moth (*Phyllodes imperialis* ssp.) and he enthralled us with the wonders of the Richmond birdwing and the vine it depends on – *Pararistolochia praevenosa*. Both the birdwing and this beautiful moth are "at home" breeding in the Mary Cairncross Scenic Reserve (MCSR).

Don explained the life cycle and population dispersal of the butterfly and vine, the butterfly's disappearance from former strongholds such as Kin Kin Creek, and the relevance of genetic identities of plants when selecting vines for a particular area. Did you know that the birdwing butterfly formerly ranged from Maryborough to Grafton and even possibly as far as Coffs Harbour (one was once seen there!), or that the pupae can delay development and hatching by going into diapause until the climatic conditions are appropriate? Jill Chamberlain then relayed her group's experiences with planting a butterfly garden at Stanley River Park at Peachester and monitoring vines for more than 10 years. Ray Seddon related his experiences of propagating vines and other properties, and the 'trial and error' way in which he has perfected growing and planting the vines. His property is now a haven for butterflies with hundreds of vines planted to lure females into laying their eggs on the leaves.

Ray also unveiled drawings of a trellis which, when constructed, will allow vines to be planted and viewed from ground level at the teaching platform in Mary Cairncross. The focus of the day, aside from the birdwing butterflies flitting about, was to recognise MCSR as the core breeding habitat for Caloundra City and a key to the National Recovery

of the species, and as a central point for corridors of habitat to radiate out from. The site chosen in Cairncross Reserve is ideally placed to share the message of this beautiful butterfly and vine with the public. Ray then lead our group on a tour of his beautiful property, showing us a mature vine in fruit and flower, caterpillars and pupating caterpillars, and his Taj Mahal chook shed which supported many vines. Then we travelled on to the nursery where Ray explained his successful tips for growing the vines. The day finished with plans to involve willing staff in constructing our vine trellis for a mass planting in Spring, and an Education Notice Board along with an RBRN corridor map showing existing sites and the establishment of new Stations and Links. This map will be updated continually to show natural vine sites, planted Links and Stations and most importantly, the corridors. Just as Ray and Don wrapped up their talks, as if on queue, a male and female butterfly fluttered past and hovered around a nearby tree for photo opportunities- what a fantastic sight!

The Birdwing Butterfly Garden at Mary Cairncross Scenic Reserve promises to bring an exciting new education theme to the Reserve while playing a vital role in saving an amazing species. This Project is guided by the members of RBRN and supported by Caloundra City Council, Land for Wildlife, SE Queensland Catchments Board, National Heritage Trust and Landcare groups throughout the Shire. Thanks to Ray and his wife Pam for allowing us this wonderful opportunity and to Don for his insights.

## **REPORTS**

### **MAROOCHY COUNCIL'S RICHMOND BIRDWING BUTTERFLY WORKSHOP AT EUMUNDI**      *Stephanie Reif and Amanda Ozolins*

As part of its 2007 Conservation Volunteer Training Calendar, Maroochy Shire Council held a "Help Save the Richmond birdwing Butterfly" workshop on Sunday 18 February, in Eumundi at the CWA Hall. Eumundi was chosen as it is thought to be near the most northern breeding population of birdwings. Over 50 participants came from Maroochy's Land for Wildlife and Community Conservation Programs and a number of people from around the Sunshine Coast region also attended.

Each participant was asked to show on a map of the shire where they lived, and if they had birdwings, birdwing caterpillars or birdwing vines on their properties. This map also showed known sightings of the butterfly and its caterpillars and also records of vines both planted and natural. Presentations were given by Don Sands and Dawn Muir, outlining the ecology of the birdwing and the projects that have been undertaken and coordinated by the *Richmond Birdwing Recovery Network*.

Four community groups, Mary River Catchment Coordinating Committee, Maroochy Waterwatch, Coolum District Coastcare and Mooloolah Waterwatch and Landcare, have received funding from Maroochy Council to coordinate a mapping project for the Richmond birdwing. The project included a request for people to send in sighting forms to record butterflies, caterpillars and vines. At this Workshop the coordinator from each group gave a brief overview on the response to the project. Five presentations from landholders were then given. These included:

- Elizabeth Verreyt from Flaxton, gave a talk on establishing a Richmond birdwing colony on her own *Land for Wildlife* property and adjoining Council land that she is re-vegetating with the Kondalilla Bushcare Group.
- John Jeffreys from Eumundi, also a *Land for Wildlife* property owner, gave a presentation on his observations of the butterfly and of natural and planted vines in his area.
- Helen Hepburn, also from Eumundi, discussed the plantings of Richmond birdwing vine she has undertaken on her *Land for Wildlife* property.
- Lyla Hansen of Forest Glen spoke of propagating vines and observations of the growth of vines on her *Land for Wildlife* property. Lyla also gave a presentation on Neil and Sue Stoodley's urban property at Buderim where a planted vine attracts birdwings each year.

The presentations were followed by a discussion on how individuals and groups can continue to make a difference. A great display of birdwing caterpillars on a vine was provided by Ray and Pam Seddon. Coolum District Coastcare and Pam and Ray Seddon had *Pararistolochia praevenosa* seedlings for sale with over 30 vines purchased on the day, demonstrating how keen landholders are to play a part in providing habitat for the butterfly. The workshop finished with a fabulous lunch and more discussions on the birdwing. (Notes from this workshop are available by calling Amanda Ozolins on 5441 8414).

### ***Future activities in Maroochy Shire***

**Mapping program.** The current mapping project coordinated through the four local community groups finishes at the end of this financial year. The sighting forms will continue to be available for future records. The data from this project will be collated by Maroochy Council and passed on to the Richmond Birdwing Recovery Network. Community groups will continue these projects based on their capacity. Grants for these community groups will continue for this project (closed on 31 March).

#### **Land for Wildlife Program, Aims:**

- Continue to expand Maroochy's *Land for Wildlife* program.
- Continue to educate landholders of the importance of naturally occurring *Pararistolochia praevenosa* vines through initial property visits and revisits to properties already involved in Land for Wildlife.
- Continue to educate landholders to identify and eradicate Dutchman's pipe vine if it is present on their property.
- Continue to encourage landholders to plant vines in appropriate areas.
- Continue to encourage landholders to use the Community Propagation Facility nursery area to germinate and grow seedlings of *Pararistolochia praevenosa*.
- The Land for Wildlife seedling incentive will continue to be available to Land for Wildlife property owners to obtain *Pararistolochia praevenosa* seedlings.
- Consider targeted promotion of Land for Wildlife in key priority areas which may include habitat for Richmond Birdwings.

#### **Community Conservation and Bushland Management Programs**

- An awareness raising project for residents adjoining significant reserves at Coolum and Yaroomba will be undertaken. This may include habitat enhancement, extension and giving out free *Pararistolochia*

*praevenosa* vines to neighbours near these reserves.

- Continue to encourage planting of *Pararistolochia praevenosa* vines in appropriate areas.
- Continue to encourage community groups to manage Bushland Conservation Reserves, to undertake weed control and re-vegetation projects, including those with Richmond birdwing butterflies and vine present.
- Maroochy Council will continue to undertake weed control and re-vegetation in Bushland Conservation Reserves, including those with naturally occurring vines and those areas infested with Dutchman's pipe vine.

### **General activities**

- Continue to raise awareness of the Richmond birdwing butterfly through a range of articles in Council's environment newsletter "Bushlands".
  - Include information on the Richmond birdwing on the Council's website.
  - Implement the Pest Management Plan and the specific actions relating to Dutchman's Pipe vine as a priority pest.
- Environment Grants will continue to be available for landholders and community groups to undertake a range of projects which may include providing habitat for Richmond birdwings.

## **PROGRESS AT BEERWAH AND WITH CORRIDORS IN CALOUNDRA SHIRE**

*Ray Seddon*

The weather brings many changes to the growth of the Richmond Birdwing Vine (*Pararistolochia praevenosa*). Last summer was no exception with very little rain before the end of December 2006. However, rain experienced in January 2007 was well timed allowing the vines to recover after the impacts of the previous eating frenzy by larvae! Numerous sightings of the butterfly have continued all summer and the numbers have increased overall, not only of the adults but also the eggs deposited, and numbers of larvae and pupae. The larval numbers provide the most accurate way of estimating a colonies' population. Pupae may be used but the frequent movement of larvae from the vine and camouflage of pupae makes this a difficult task and it is very time consuming! In mid March with a flush of larvae devouring vine leaves, stems and pods (yes pods, a recent and surprising observation this season), the vines are holding their own and indications are looking very promising for an outstanding spring hatch of adults.

**Observations in the nursery and of wild vines.** Following the dry conditions prevailing during the flowering period, all indications have shown the numbers of seed pods from this season are down by 50% on last year's harvest. Reports coming in from natural old established vines are disastrous! I have surveyed many old remnant vines and no seed pods are visible from the ground. This outlines in the strongest way, that if the cultivation of the vine is to continue, all seeds will be best obtained from cultivated stock in the future. Nursery work has been frantic during March/April to put down sufficient available seed for future plantings. Great News! Phil Rolton has agreed to come on board to help in our nursery in Beerwah, passing on his knowledge and experience as a former Nurseryman in the Caloundra Shire Council Nursery. This will be much appreciated and am sure we will keep him busy propagating and planting up more vines. My thanks to Phil Rolton!

**Northern corridors.** Exciting news from northern Sunshine Coast with the first of two Links (private properties) now established. One is at Witta and one at Eumundi. Thanks to the Landholders for their support and the planting of their vines will take place in the next few weeks. On an aerial map of the Caloundra Shire the *Links* and *Stations* will be marked along with "Core" areas (existing areas known to be supporting breeding Colonies) including cultivated vines which have already been planted by Landholders and Land care groups. We will then have "Core areas" with planted sites radiating out towards the *Links* and *Stations*. RBRN thanks Nick Clancy, Extension Officer for the Caloundra Shire and Land for Wildlife programs, who have kindly agreed to provide the laminated aerial map. All localities for vines are to be confirmed with GPS readings provided for the National Data Base (managed by Hugh Krenske).

**Plans for Educational Platform at Mary Cairncross Scenic Reserve.** At the RBRN Workshop held at Mary Cairncross Scenic Reserve in November a suggestion was made that a Community and Education Display area be established, as approx. 80,000 visitors a year visit the Reserve including School Groups. A survey for suitable sites for a Display area was conducted on the 7<sup>th</sup> March by Mark Bonner, Mary Cairncross Coordinator, Dr. Don Sands, President of the RBRN, Des and June Harris, M.C. Volunteers and me. Out of 3 sites examined the training platform on the northern side of the public area was chosen. Developing the Display is supported by RBRN, Caloundra City Council, Land for Wildlife, Community Landcare Groups, SE Queensland Catchments, and the Natural Heritage of Australia. The project will be run by Volunteers & the Community. Stage one will comprise of a supporting structure 16m x 3m high. It will be built in a semi circle around the existing training platform, with 15- 20 vines to

be planted out in early September. In the second stage approx.50-60 vines will be planted around the perimeter of the area for public viewing. An information Notice Board and Shire Map will be installed to be marked with all the locations of Connecting Corridors. This will be updated progressively as new information comes to hand. The birdwing vines from my nursery at Beerwah will be donated to start this wonderful project. Thanks to all who are helping to make this project happen. We are pleased to say plans are now underway.

**Field Day for Volunteers.** An interesting and enjoyable day was spent by all who attended the field day for the Mary Cairncross Volunteers at our Beerwah Property in March. They were not to be disappointed as there was an abundance of activity to be seen through the whole cycle of the Butterfly. Discussions took place re - the *Education Platform Area* at the Reserve and in closing the day there was a fly past of a male and female birdwing courting. Their dance was beautiful leading to some wonderful photo shots.

## RECOVERY PLANS FOR THE BEAUDESERT SHIRE

*Keith McCosh*

The recovery of Richmond birdwings in South East Queensland depends on corridors to allow some form of cross-breeding between populations, due to their propensity to suffer in-breeding suppression. Beaudesert Shire is uniquely positioned to support more butterflies and to encourage butterfly movement from south to north. The strategy basically involves:

- having a few core areas based on natural vines
- focusing on Lowland birdwing Vines (*P. praevenosa*)
- creating a corridor from Tamborine Mountain across to Greenbank – thence to Ipswich and the western suburbs of Brisbane creating a corridor along the southern boundary of the Shire. Core habitat areas for Birdwings exist on Mount Tamborine and around Canungra. Native lowland birdwing vines (*Pararistolochia praevenosa*) are found here in National Parks and in reserved areas. These areas need to be expanded with more vines planted to sustain a bigger and stable population. Additional “Stations” and “Links” will certainly be created across Mount Tamborine to make this area the mecca for birdwings. Mount Tamborine is also within about 15 – 20 Kms of birdwing populations on the Gold Coast.

**Mountain Populations.** Ultimately, conservation depends on having more lowland birdwing vines in the landscape, as the Mountain Birdwing Vine (*Pararistolochia laheyana*) is unreliable as the basis for conservation (birdwing pupa struggle to survive desiccation in the dry winters in the mountains). There are large areas of suitable mountain habitat with the

Mountain birdwing Vine in Beaudesert Shire. Huge numbers of Birdwings were seen over 10 years ago in the Christmas Creek valley, so mountain habitats can be quite prolific when seasons are favourable though the “good years” are very erratic and isolated.

**Proposed Corridors** Using a mix of both private and public lands, a corridor of vines can be created across the Shire from Tamborine Mountain to Greenbank, using sites along the Albert River and along the Logan. At Greenbank, on Oxley Creek, numbers of vines could form a basic *core breeding area*. This corridor would link with creek-line corridors through Ipswich, especially Woogaroo Creek, and thence to the Western Suburbs of Brisbane, especially Moggill Creek. Oxley Creek can also be developed as a corridor.

Populations of Richmond birdwings in the Richmond Valley in northern NSW can easily move across Beaudesert Shire, either through Lamington National Park, or west along the McPherson Range to Mt Barney and onto the Main Range. Extra sites for Lowland Birdwing Vines need to be established along the foothills of the McPherson Ranges to enhance the birdwing’s movement through habitat corridors.

## **A LAND FOR WILDLIFE PROFILE: PROVIDING A RICHMOND BIRDWING FEEDING STATION NEAR KONDALILLA**

***Stephanie Reif (communicated by Amanda Ozolins)***

Just near Kondalilla Falls National Park lives a very keen Land for Wildlife property owner intent on providing more food plants in a habitat for the Richmond birdwing butterfly. Elizabeth Verreyt has lived in the area for the last 10 years and has re-vegetated her own land of nearly 1.5 hectares with rainforest trees and shrubs.

Since seeing a male and female Richmond Birdwing Butterfly feeding on nectar from flowers of a scrub cherry (*Syzygium australe*) which she had planted, Elizabeth has incorporated over 50 Richmond birdwing vines (*Pararistolochia praevenosa*) into the rainforest that she has revegetated. Elizabeth is hoping to create a viable feeding and breeding colony (a “Link”) for the Richmond birdwing butterfly in her local area. She wants to plant 100 vines on her own property and in the Council’s Bushland Conservation Reserve that adjoins her land. This figure is considered adequate for establishing a colony.

After working by herself in the Bushland Conservation Reserve, Elizabeth received help from a former *Greening Maroochy* Officer, Nick Willis who









**NOTES FROM TALKS PRESENTATED AT MAROOCHY COUNCIL'S  
RICHMOND BIRDWING WORKSHOP: *PARARISTOLOCHIA* -  
REGENERATION OR PROPAGATION?     *John Jeffreys***

I note and sympathise with the problems outlined in Bryan Hacker's article in the recent Richmond birdwing Recovery Network Newsletter, towards establishing *Pararistolochia praevenosa* Vines in existing forest. My wife and I have had rather similar experiences on our property at Eumundi. The natural history of these vines in the wild does not seem to be well documented, and I thought that it might be an idea to share our local observations on vine behaviour and how it might affect attempts to enrich existing forests with *Pararistolochia praevenosa* vines, as compared with "garden" plantations of the vines.

**Observations.** We have made observations on our own and adjacent forest blocks (totalling about 30 ha.) just east of Eumundi for some 30 years, for both plant diversity and birdwing sightings. The area is remnant forest, with about 20 ha. of nearly pure vine forest, which has a developed canopy and which has grown well during this time. There have been some 46 different vine species identified in the area, in numbers varying from dozens (*Parsonsia*, *Piper*, *Trophis*) to single occurrences (*Mucuna gigantea*). We have sighted male birdwings fairly regularly over the years, in numbers from several males in good seasons, to none in dry years. Numbers have been dropping in recent years and only one (or possibly two) females have been seen this year.

*Pararistolochia praevenosa* vines are not common in our area. There are 4 known large mature vines growing in, or near gullies in the closed forest, extending to the canopy at a height of 20-30 metres. That density is about one vine per 5 hectares. I have found only 3 naturally seeded juveniles. Part of one mature vine was lost recently due to break and fall of the top of a large support tree. Both the naturally seeded juvenile *Pararistolochia praevenosa* vines and those that we have planted in or on the edge of the forest (observed for 10 years or more) grow extremely slowly (in low light) and only one is above 1.5 metres high. The young vines seem also to be rather choosy as to the species of tree that they will climb up. Our near neighbours (Mal and Helen Hepburn) with their garden plantings have had greater success by growing a number of vines. Some have flowered but none yet have set seed. Ray Seddon's facility at Beerwah, growing practically in the open is another thriving example of conditions conducive to successful mass propagation.

**Suggestions.** In nature, rain forest vines seem to vary, some are rampant, very vigorous, climb rapidly and therefore appear to be common.

After working by herself in the Bushland Conservation Reserve, Elizabeth received help from a former *Greening Maroochy* Officer, Nick Wallis who formed the Kondalilla Bushland Group. The Group now meets on the 4<sup>th</sup> Sunday of the month and is supervised by Colleen Long. Extensive weed control has been undertaken by the group in the Bushland Conservation Reserve which was overgrown with lantana, broad-leaf and small-leaf privet, camphor laurel, impatiens, wandering jew, cat's claw creeper and moth vine. About one half of the reserve has been cleared of weeds, but there is still about 1.5 hectare to be done. Many native trees and shrubs, including 17 Richmond Birdwing vines, have already been planted in the riparian area of Picnic Creek.

Elizabeth has been able to finalise her plan to have a Richmond birdwing breeding colony in her local area by adding another 50 *Pararistolochia praevenosa* seedlings she has obtained through this year's *Land for Wildlife Seedling Incentive*. Now we just need a good wet season to get the vines well established! A presentation on the work that Elizabeth has undertaken was given at the recent Richmond Birdwing Butterfly Workshop as part of Maroochy Council's 2007 Conservation Volunteer Training Calendar.

## **TISSUE CULTURE OF *PARARISTOLOCHIA PRAEVENOSA***

***Peter Bakker***

To date progress has been made with developing a tissue culture technique for the Richmond birdwing vine. This will eventually enable unlimited production of vines from specific genetic stock of vines when seed pods are unavailable or adequate vegetative material for cuttings is not available.

With current methods I can get rapid callus culture multiplication, potentially capable of producing huge numbers of vines in a very short time but at this stage I have not managed to produce any vines from these cultures. I am now trying modifications to the medium formulations and there are indications of differences in callus structure on one of these. The developing plant cells on the original multiplication medium may need a longer period of rapid subdivisions to produce embryonic cells. There are some indications that the structures of callus clumps are changing and results are encouraging but only time will tell if these tissues are capable of being transformed into plants. Once I can produce regenerating embryonic callus it will be a matter of fine tuning of the methodology.



Others seem to be “opportunistic” and lie dormant for long periods. These appear probably to be waiting for canopy disturbance and resulting light entry to start active growth, and therefore are less vigorous. *Pararistolochia praevenosa* vines are in the latter group, as are vines of *Carronia multisepealea*, the host plant for the very rare Pink Underwing moth (*Phyllodes imperialis*, southern subspecies). In view of the relative constancy of both vine and butterfly numbers observed in this forest over the years,

I would suggest that:-

1. The overall decline in butterfly numbers is mainly due to the loss in the total area of rain forest in S.E. Queensland with vines. This has been of the order of 70-90% since settlement.
2. The likelihood of enhancing *Pararistolochia praevenosa* vine numbers in such forests is not great in the short-term, in view of the relative infrequency, uncompetitive nature and slow habit of growth of the vine in the wild. In an established forest the development of a large area of canopy by one *Pararistolochia praevenosa* is a process that would take decades. I would also doubt whether multiple closely planted vines would be successful in such a setting.
3. The best hope of rapidly increasing food sources and butterfly areas as I see it, is large-scale artificial plantings in relatively good light, as has been done already by many RBRN members. These should preferably be on trellises or arbores, to mimic canopy conditions. *Is this a use for old Hill's Hoists?!*
4. The effects of climate change (increasing drought) need to be considered. Bundaberg's 'old climate' seems to be migrating south, with deleterious effects on our early summer rainfall, the new canopy growth with soft vine leaves and possibly also on the numbers of midges that are needed to fertilise the vine flowers.

## **THE RICHMOND BIRDWING BUTTERFLY AT EUMUNDI**

*Helen Hepburn*

Mal and I bought our one hectare block of land in 1991. The land in our estate had been logged, and then used for dairying until it was subdivided for housing in the early 1980's. Most of the land had been cleared on the flat areas, but the creek and riparian areas were left intact with a good selection of rainforest trees and vine thickets. There were no naturally growing Richmond birdwing Butterfly vines on our property when we built our home in 2001. Our property became registered in Maroochy Council's Land for Wildlife program in 2006.

I first became aware of the Richmond birdwing butterfly (RBB) when I

attended an SGAP meeting in Ipswich and the guest speaker was a chap from the Double Helix Club and his topic was the RBB. A good friend of ours, Paul Grimshaw (a botanist), told us that our area at Eumundi was home to the butterfly and I purchased two vines at that meeting. The vines were planted at the base of a scentless rosewood approximately 15 years ago and despite a lack of TLC, one of the vines has grown up and into the canopy. Our neighbours, Chris & Peter Hartley, and ourselves bought 15 vines each from the Barung Landcare Group approximately 4 years ago and happily planted them out mostly in shadier parts of the garden, expecting them to grow well. After joining the Richmond Birdwing Recovery Network and learning a few tips on cultivation, we sought out these vines. Some were still there but several went "missing in action". Most had hardly grown and several in our garden were only half their original size! They were fertilized and iron chelates applied. They are still vertically challenged but now starting to grow.

A visit to Pam and Ray Seddon's garden last year gave us new impetus to do a lot more. We purchased vines from Ray plus several from our local nursery. The vines showing the most growth are those growing in the irrigation gardens from our treated water system. I believe they are growing well, partly because of the sandy loam added during construction and also better light. Many of the previously planted vines were under far too much heavy shade. After much thought, I've come to the conclusion, that for us at least, the quickest method of vine culture might be in large tubs and growing up a trellis - perhaps even a clothes line or hoist. I have seen an amazing jade vine grown in this way. I now fertilize the vines on the first of the month with either Thrive, Aquasol or Fish Emulsion. I have just purchased another three good sized vines and intend to trial these vines in tubs, but growing up suitable native trees and vines (e.g. Wonga or Bower of Beauty vines *Pandorea* spp. & Native wisteria *Callerya megasperma* previously *Millettia megasperma*) close to the house where I can look after them and hopefully view the butterflies and caterpillars. Several of the larger vines flowered well, but *no seeds* were set. I believe growing the vines over a trellis or equivalent could be the way forward as larvae, pupae etc can be monitored closely.

A female butterfly was observed in our local area in February 2007 so it is good to know that they are still about but it is very worrying that our local area near Eumundi in Maroochy Shire now seems to be the northern most limit of the RBB distribution (no butterflies have been observed in Noosa Shire for the last two years). I write a fortnightly column in the "Eumundi Green" and regularly discuss the Richmond Birdwing Butterfly to raise awareness and enthruse others to do more. Hopefully by planting more vines and encouraging others to do so, we can halt the southwards trend

occurring recently.

**FOOTNOTE:** Ray and Pam Seddon came to our house on 11 March '07. We showed them our vines, took them to the Hartley's who have a naturally growing vine (and also purchased vines), and also to the Jeffrey's who also have naturally occurring vines plus purchased vines. Ray kindly brought us a strong & healthy vine and showed Mal and I the "latest" planting technology!!! We await the progress of this new vine with bated breath! At last count we had 38 vines, but obviously still need more.

## **RBRN MAPPING and DATABASE UPDATE**

*Hugh Krenske*

The mapping database is now operational. Its purpose is to maintain a register of the birdwing host plants, *Pararistolochia praevenosa* and *Pararistolochia laheyana* and any observations of the butterfly in any of its life cycle stages. Ultimately these data will be used to produce a range of maps to illustrate the trends over time and whether we have been able to reverse the decline in both host vines and the butterfly populations and their densities.

The database permits the entry of new, and the editing of existing records. It allows for the recording and identification of planted vines as well as wild vines, their relative size, health, density (number of plants in a nominated area) and tenure of the land on which they have been found or planted. Additional information includes the recording of the local authority in which the plants, the RBRN corridor if one exists and for plants that are already in the database, it is possible to record that they no longer exist and make a relevant dated comment. Additional functionality will be added over time. This will include the download of PDF files in the format of the survey forms but including the existing data, the addition of dated extra notes for existing vines ( useful for monitoring planted vines), and export files that can be used in mapping software programs.

At the moment the database can only be accessed by entering the following address in the address field of your favourite browser. (Internet Explorer, Firefox or Netscape). **[http:// 58.6.117.122/rbrn/index.php](http://58.6.117.122/rbrn/index.php)** If your access to the internet goes through a firewall, it may prevent you accessing web sites using "raw" internet addresses, allowing only access through registered domains. In time it is hoped that the network will get its owned registered domain such as "rbrn.org.au".

There are a number of access levels. General access is permitted to anyone over the internet who knows the internet address. This provides very limited data and excludes latitude and longitude, surveyor's personal

information, but includes corridor, local authority, general location data and general comments. No editing at this level is permitted.

- There are a number of links on this page that provides visitors with: the aims of the *Richmond Birdwing Recovery Network*,
- a membership form,
- a pictorial reference to both vines and look-alike vines, photos of the butterfly in its various life cycle stages,
- a blank survey form, and
- an explanation of the items on the survey form.

1. RBRN Corridor Coordinators can ask to be registered for a higher level of access. This next level permits users to see more detail about the location of the various surveys, including latitude and longitude if they have been recorded and provides an advanced search screen that allows the differentiation between wild and planted vines, and vines on public land or private land, by corridor or local authority level. An additional search facility that may prove very handy is to retrieve a list of observations within a nominated distance from a particular location. The list of observations retrieved would be those that fit into a square with the nominated location at the centre. To enable the data to be used in Google Earth the user can select the location format of “dd.ddddd” (degrees and fraction of a degree to 5 decimal places) rather than the RBRN chosen format “ddmm.mmm” (degrees and minutes and fraction of minutes to 3 decimal places). Taking the data from the database screen into the search area of Google Earth (eg -26.54937, 152.88891) and press the search icon will send Google Earth zooming into that location and present quite an interesting and helpful view.

2. Note that latitude (south) as in this area is negative (-) and longitude (east) is positive. No editing is available at this level.

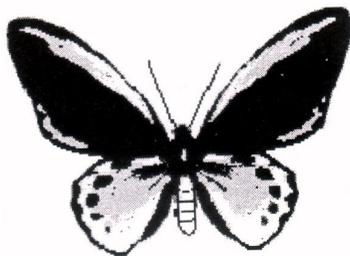
3. The third access level allows a registered user to add new surveys or edit existing ones. The user must be registered with each corridor to be able to add data to that corridor or edit data in that corridor. To add data that does not belong to a particular corridor, just leave the corridor blank. It can always be picked up later and added to a new or exiting corridor. More than one user can be defined to edit data for a particular corridor.

4. The fourth level provides system administrator access. There will be very few of these. Members with this access will be able to add or edit users, define who can have edit access for the data in the various corridors, and add support data such as local authorities, new corridors, edit existing support data etc. This must be done judiciously as the simple change to a snippet of lookup data can change the whole nature of the database.

The highest level of access is provided to the “owner” of the database, i.e. the person who set it up in the first place. This person may not be a member of the Network but it is necessary to carry out functions such as backing up and restoring the database, checking that the system stays on line and so on.

For those of you that are interested, the database uses the PostgreSQL DBMS on a Linux box. The languages used are HTML, PHP and a little bit of JavaScript. Access may be a little slow at the moment as this box is pretty old and slow. A new and much faster IBM server is being prepared to take over this role. It just needs time to get it configured and brought on line. The question has been asked as to whether a user can put the database onto a lap top for field use and then upload the new or edited data into the national database. This is possible and the most useable method would be to develop a windows program to sit over the top of a Microsoft Access database into which the data has been installed. However, this would take a lot of time to develop and it introduces a number of complexities. Updating the national database with data from a number of smaller databases would need a lot of thought and planning and the time to do this may be better used just entering the data into the existing system. Furthermore, with the new 3G network that Telstra is establishing, it is possible to connect your laptop directly to the internet and enter the new data directly into the database if one is in range of its network. There will be no need for a dialup modem or an ADSL modem.

**Future of Data Base and Maps.** The next major stage is to obtain the software ARC GIS and the base maps for South East Queensland and North Eastern New South Wales. This will enable the production of a range of maps with relevant overlays from one for the whole RBRN region to the various local authorities, and corridors. These maps will be added to the web site as needed or prepared and emailed on request.



**MINUTES OF THE GENERAL MEETING OF THE RICHMOND BIRDWING RECOVERY NETWORK INC., HELD AT CSIRO, LONG POCKET ON FRIDAY 23<sup>RD</sup> FEBRUARY 2007**

**Opening of Meeting:** The President, Dr Don Sands, opened the meeting at 2 pm and welcomed members and visitors. Don asked those present to sign the attendance sheet

**Apologies:** Received from Helen and Mal Hepburn, S. Jones, Dr Bryan Hacker, Jutta Godwin, Lois Hughes, Dick Bull, Anne Stone.

**Election of New Members.** The President announced the new members already nominated and seconded and they were elected by a show of hands.

**Minutes of the June General Meeting:** The Minutes of the last General Meeting held on 24<sup>th</sup> June 2006 at 'The Hut', Fleming Road Chapel Hill, were circulated in last Newsletter. *Moved minutes be accepted:* Graham Forbes, *seconded:* Greg Siepen; motion carried.

*Business arising from Minutes of the last General Meeting:*

(i) Greg Siepen has begun working with a new teacher at Brookfield School on their RBRN student project.

(ii) The President was asked to write an official letter of thanks to Sue Scott who has resigned as Education Co-ordinator. Greg Siepen has accepted that position.

**Financial Report** The Treasurer, Alan Scott, presented the financial report. He remarked that there is a shortfall between the ledger figures and the bank statements of \$191.50. *Moved the Financial Report be received:* Alan Scott, *seconded* Greg Siepen.

**General Business Workshops:** Dawn Muir commented on the successful *Richmond Birdwing and Vine Workshop* conducted by the Maroochy Shire Council at Eumundi, on Sunday 18<sup>th</sup> February 2007. A report on this Workshop will be published in a future RBRN Newsletter

**Education:** The Secretary, Dawn Muir reported on progress to date with collating members' ideas for RBRN educational publications and presentations. Members are encouraged to email Dawn with ideas and requests for educational material.

**Captive Breeding Program.** The Vice President, Greg Siepen spoke about the proposed Captive Breeding Program for the birdwing to be undertaken by RBRN in collaboration with the Queensland Environmental Protection Agency (EPA). There are two proposed breeding facilities, one at the David Fleay Wildlife Park, Currumbin and the other adjacent to riparian rainforest below the Gold Creek Dam. The program will enable experiments to address inbreeding depression, a major problem with fragmented populations of the birdwing. The EPA permits required for captive rearing were outlined. It is hoped to have the Gold Creek facility up and running by Spring 2007. The project will work closely with the Environment

Protection Agency since both the butterfly and the vine are protected species and require their approvals.

*Newsletter* Don Sands reported on plans to continue the new cover design – the current series will have a painting of the Birdwing Butterfly – thanks to the generosity of the artist, Lois Hughes. The next issue is planned for April/May 2007. The President will send a letter of thanks to Lois Hughes for allowing her wonderful illustrations to be used as our RBRN Newsletter frontispiece.

*Role of Corridor Coordinators* Ray Seddon described what is involved in being a Corridor Coordinator and mentioned the numbers of people growing vines for the *Network*. Discussions included the stages suitable for planting, pot size, age since germination. Don Sands commented that there has been an apparent reduction in the abundance of midges that fertilise the vine's flowers, resulting in reduced seed set.

*Tissue Culture* The President reported that one of our members, Peter Bakker, has made progress with tissue culture of *Pararistolochia praevenosa* which will allow large scale cultivation of material from specific areas when seeds are in short supply. The President suggested an honours student will be sought to investigate DNA and morphological variation in the vines from different localities and to compare within population variation (phenotypic plasticity).

*Mapping of birdwing vine distribution.* Hugh Krenske described the data base set up for the mapping of all historic data, planted areas, plant density, health and size of vines, both current and historic lists. The web site will allow access to the data base. Currently, there are three major areas: north-eastern N S W and Queensland: north of Brisbane and south of Brisbane. These areas will be further separated into actual corridors or as municipal regions as they are established.

**Invited Speaker:** The President, Don Sands introduced and welcomed the Guest Speaker, Dr Samantha Lloyd and congratulated her on gaining her PhD. Dr Lloyd spoke on the topic *The Birds and the Bees: Pollination Ecology Essentials*. A vote of thanks was moved by Dr Ian Gyntner after a most interesting presentation enjoyed by all. The pollination role of the midge in *Pararistolochia praevenosa* was discussed.

**Next Annual General Meeting:** The date, location, time and the Invited Speaker will be announced in the next Newsletter.

**Close of Meeting.** There being no further general business the President thanked members and visitors for attending and the Officer-in Charge, CSIRO for allowing use of their meeting room. The President closed the Meeting at 4.15 pm.

**Recommended Nurseries for quality\* birdwing Vines:**

Gary Einam, Proplant Nursery,  
80 Robbs Road,  
Morayfield, Qld 4506.  
einam@microed.com.au  
(07) 5498 5592

Christine Hosking  
351 Boscombe Road  
Brookfield, Qld 4069  
cjmhosk@optus.com.au  
(07) 3374 3453

Ray Seddon  
PO Box 317,  
Beerwah QLD 4519.  
The seddons@westnet.com.au  
(07) 5494 0383

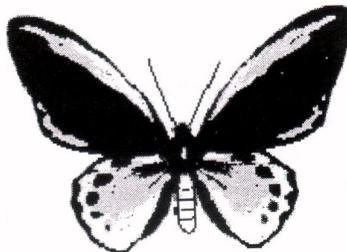
Richard Bull  
PO Box 49,  
Indooroopilly, Qld 4068  
Richard.bull@uqconnect.net

***BIRDWING VINES NOW AVAILABLE!***

Chris Hosking now has quality vines of *Pararistolochia praevenosa* with runners "Up the Stake" and ready to plant (\$6 each)

Phone or email with your orders:  
cjmhosk@optus.com.au  
(07) 3374 3453

\* **Eds Note.** Vines 'up the stake' are advanced enough to plant out. Experience shows that seedlings or cutting-grown plants less than 12 months old without climbing runners, are extremely prone to drought and strong light and are not likely to survive.



## **RBRN Corridor Coordinators \***

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Janette Wallis (Mid Sunshine Coast)  
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John Moss (Eprapah Creek)  
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Sally Jenyns (Buhot Creek)  
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(07) 3219-0418

Russell Mayo (Nth. Sunshine Coast)  
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Dr Ian Gynther (Kin Kin Creek)  
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Eva Ford (Mary River Catchment)  
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(07) 5482 4766

Dick Bull (Cubberla / Witton Creek)  
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(07) 3378 0340

Keith McCosh (Beaudesert Shire)  
keith-mccosh@hotmail.com  
(07) 3288 4709

\* Corridor Coordinators represent the RBRN at local birdwing events and act as contacts for the community and local government representatives in their area. They may be elected at any time of the year and will be asked to provide a report each year for activities in their areas, establishing vines to address habitat fragmentation of corridors, as well as planting vines at Stations (public land) and Links (private properties). They also assist with documenting and mapping natural stands of vines for the RBRN National Data base.



## **NOTICE OF ANNUAL GENERAL MEETING**

The next General Meeting of the *Richmond Birdwing Recovery Network* will be held from 12.45 – 3.30 pm on:

**FRIDAY 20<sup>TH</sup> JULY 2007**

**IN THE LECTURE THEATRE AT CSIRO**

***QUEENSLAND CENTRE FOR ADVANCED TECHNOLOGIES***

**2,643 MOGGILL ROAD, PINJARRA HILLS**

The main business will be an address (from 1 – 2 pm)  
by

**Professor Tim New**

titled -

***Recovery plans for insects: needs, design  
and implementation***

VISITORS ARE WELCOME

*RBRN acknowledges the financial and in-kind support of Brisbane City Council, Maroochy Council, Caloundra Council, South East Queensland Catchments and several anonymous donors.*