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**Recommended Nurseries for Quality Birdwing Vines**

Gary Einam, Proplant Nursery,  
80 Robbs Road,  
Morayfield, Qld 4506.  
<einam@westnet.com.au>  
Mob. 0429 342 259

Graeme Wilson  
Moggill Creek Nursery  
Gold Creek, Qld 4069  
zzzgrw@bigpond.com  
(07) 3374 1218

*Brisbane City Agent for Proplant Nursery*  
Richard Bull  
<richardbull@uqconnect.net>  
(07) 3378 0340

Ray Seddon  
PO Box 317  
Beerwah, Qld 4519.  
<theseddons@westnet.com.au>

Graham McDonald  
12 Pharlap Ave  
Mudgeeraba, Qld 4213  
grahamcd14@bigpond.com

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## RBRN T-SHIRTS ARE NOW AVAILABLE

### PRESIDENT'S REPORT

Presenters at the RBRN Workshops have been most impressed by the overall success of these events and the responses received from community members attending. The eighth, for Brisbane's Western Suburbs, was recently held in August. Two more Workshops are proposed for 2008/09 for the Moreton Bay and Harvey Bay Regions. The series has only been made possible for RBRN, by the generous financial support from Regional Councils, Catchment and Landcare Groups, South East Queensland Catchments and other Community Groups. Workshop agendas have varied slightly to provide local community groups with a background to differences in habitats, threats and overall prospects for recovery of the Richmond Birdwing butterfly in their areas. Thanks to the RBRN Members and the Presenters for the time they have taken with preparations for the workshops and special thanks to our Secretary Dawn Muir, for organisation and as RBRN's host at these events and to Dale Borgelt for the Workshop displays.

In south-eastern Queensland we have been fortunate this year with high winter survival rates of birdwing pupae, due mostly to relatively moist weather. We can expect excellent birdwing population responses this spring on the Sunshine and Gold Coasts following suitable growth on the food plant vines. Last autumn sightings of adults and immature stages, were definitely on the increase when compared with the past recent, drought-stricken years, 2002-2007. For the driest region between Caboolture and Beenleigh, although a natural area of "rain shadow", the ecosystems are slowly recovering from prolonged drought. However, Richmond birdwing butterflies and their food plant vines have in this central area of distribution, a little way to go, before we can expect to see the butterflies persisting in the suburbs of Brisbane.

In the coming summer members of RBRN are asked to continue with on-going planting of birdwing vines at strategic locations and to ensure that the locations and numbers of vines are recorded in our data base. The maps prepared by RBRN Vice President, Hugh Krenske, with assistance from Pam and Ray Seddon, and Edwina Sharpe, contribute to showing where the gaps in corridors remain.

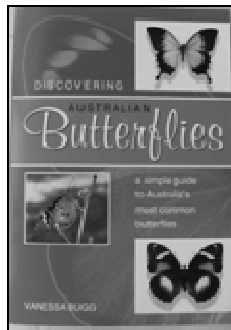


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For each area, filling the gaps by planting more vines will need coordination, weed management and watering.

Current *Links* and *Stations* should be re-visited and monitored at intervals to estimate vine survival, health and growth and by June 2009, we hope 80% of planted birdwing vines will appear on the RBRN developing map. The role of Corridor Coordinators has been immensely important and participants at the recent RBRN Workshop for Brisbane's Western Suburbs were able to see the value of coordination in one of the earliest, environmentally disturbed, areas. Coordinators Dale Borgelt and Dick Bull showed us all how much progress has been made towards filling gaps in birdwing vine populations west of Brisbane. This year, to add support to Coordinators' activities, RBRN is considering a proposal to introduce a new role for a Council Member as a *Corridor Convenor* to help with information retrieval on birdwing observations, data entry and overall mapping of planted and wild vines.

The coming year's activities and the longer-term future of the *Richmond Birdwing Recovery Network* will be discussed at the next AGM in September. Please ensure nominations for RBRN Council members, or proxy votes are lodged in writing with our Secretary, Dawn Muir, well before the meeting. All parties signing nomination forms need to be financial members for 2008/09.

New and proposed activities for 2008/09 will always require additional funding so please ensure these activities are well planned, feasible, and costed, and that members are willing to oversee or carry out the work properly. Our track record for managing external funding is excellent and I am sure we can maintain this reputation when funds are needed. Let us hope that the Birdwing butterfly season beginning in September 2008, is rewarded with more adults and larvae being seen in rehabilitated areas and on planted vines in gardens.

RBRN acknowledges an award from Brisbane City Council's *Environmental Grants Program*, towards producing this Newsletter. A laptop computer, projector and support equipment were funded by a grant from the Queensland Government's *Gambling Community Benefit Fund*. RBRN acknowledges the Federal *Department of Families, Community Services and Indigenous Affairs* for a grant to purchase and install an insect-rearing facility.

## BIRDWING VINES AT THEIR BEST - BOOYONG FLORA RESERVE, ALSTONVILLE, NSW

*Hugh Krenske*

Recently I was invited to visit the *Booyong Flora Reserve*, north of Alstonville in northern New South Wales. This small patch of lowland rainforest, bordering the Wilson River, has been meticulously restored by the *Big Scrub Rainforest Landcare Group*. You can see more about what has been done at this reserve at the web site :

<http://www.rainforestrescue.org.au/booyongsummary2006.html>.

My wife Kay and I took a weekend to explore this lovely area, hosted by Geoff Sharpe (Ergon Vegetation Advisor), who grew up in the area and by RBRN Main Divide Corridor Coordinator, Veronica Newbury and family. When Geoff described the abundance of *Pararistolochia praevenosa* vines growing in the Reserve and suggested that the flying foxes had something to do with natural vine propagation, we had to visit the area and we were amazed at what we saw - thousands of vines growing in this small reserve ranging in size from small seedlings to mature vines, some disappearing into the canopy!

Flying Foxes have for a long time used the reserve to roost during the day. Wherever they made a camp they have opened up the forest canopy – but - there under their old camps, the Birdwing vines were thriving. Given entry of extra light, the vines had responded to clothe everything in the clearings, covered expired tree trunks and carpeted any fallen timber. This scenario was repeated many times throughout the reserve. For those of us from Toowoomba, where we know we once had the butterfly but no longer have any wild vines (and then only scant records of them), the experience was a real eye opener. While I agree with Don Sands that flying foxes have probably not been confirmed to definitely be involved in the propagation process, their habit of canopy destruction in camps leading to more light entry, together with good rainfall and flying fox manure, have stimulated proliferation of vines. During our few hours in the reserve we did not find any pupae and there was not a lot of evidence of larval feeding on the vines.

For those interested you can find the *Booyong Flora Reserve* references on the RBRN Database linked map. For entry on the Database, I have

### Payments

Post & Print	2362.3
Office requisites	798.43
Vines	4380
Catering	944.8
Workshops	1826.65
Other	7194.6
<b>Total Expenses</b>	<b>17506.78</b>

### Net income/(loss)

<b>Opening balance</b>	<b>6546.66</b>
<b>Funds at bank</b>	<b>8551.18</b>

### Reconciliation Report – July 2007 to March 2008

<b>Cash Book Opening Balance</b>		<b>6546.66</b>
<b>Add Income:</b>		
Subscriptions	2700	
Grants	13232	
Workshops	1176	
Other	1136.5	<b>18244.5</b>
<b>Less Payments:</b>		
Post & Print	1539.9	
Office	388.79	
Vines	3960	
Catering	603.4	
Workshops	1426.65	
Other	3426.4	<b>11345.14</b>
<b>Cash Book Closing Balance</b>		<b>13446.02</b>
<b>Bank Balance</b>		<b>12936.02</b>

on the database – but, given the time required for checking and entering each record and the fact that the database is now fully operational, it is expected that the backlog will soon be up to date.

The President described the **Captive Breeding Programme** in which all objectives except the breeding program (EPA had not given approval for this) had been very satisfactorily achieved. The main cause of “population drop-out” is probably habitat fragmentation leading to in-breeding. A full report is in the *RBRN Newsletter* no 11.

**Caloundra Council Nursery** Ray Seddon reported on his experience with the propagation of vines. In his local there was a gap in community knowledge about the vine and its needs. By developing in conjunction with the local council a core of nursery people who know how to grow the vine successfully, Ray has developed a programme where six enthusiasts provide the stakes, tags and labour and the Council the facilities and supervision.

**Student** The President reported that a student at the University of Southern Queensland is doing research on the DNA variation in Birdwing vines.

**Invited Speaker:** Dr Peter Mackey – *Moths of the Tropics*

**Other General Business:** nil

**Close of Meeting.** 12.30pm

## FINANCIAL STATEMENT 1.7.07—30.6.08

### Richmond Birdwing Recovery Network

#### Financial Year 2007/2008

#### Statement of Income and Expenses for period 1/7/07 to 30/6/08

##### Income

Subscriptions	2700
Grants	13232
Workshops	1626
Other	1953.3
<b>Total Income</b>	<b>19511.3</b>

only nominated 10 lots of 10 mature vines for this reserve but that really does not do the population justice. For the map, go to [www.210west.org.au/brn/mapping.php](http://www.210west.org.au/brn/mapping.php).

Go to “**Birdwing vines by local authority**”, select **New South Wales** and click on the **OK** button. You will need to do a little zooming and panning to locate *Booyong Flora Reserve*. Better still, if you get a chance to visit the area, this reserve is well worth a visit. Finally, our congratulations must go to the fine environmental restoration efforts by members of the *Big Scrub Rainforest Landcare Group*.

.....

### COMMUNITY INVOLVEMENT IN TOOWOOMBA DISTRICT: TOWARDS RECOVERY THE RICHMOND BIRDWING VINE (*PARARISTOLOCHIA PRAEVENOSA* AND *P. LAHEYANA*).

*Veronica Newbury*

The Richmond Birdwing Butterfly was last seen in Toowoomba in the mid 1980's in the Middle Ridge area. The aim of the recovery effort in Toowoomba is to re-establish the vines and eventually re-establish the butterfly in the area. *Pararistolochia laheyana* was recorded in Redwood Park in 1994 by Bryce Skaratt. However, efforts to locate the vine in recent times have proved difficult.

#### *The Stations*

The Richmond Recovery in Toowoomba is focusing on establishing vines in stations on public land. Each station will hold a minimum of 100 vines and eventually be connected by corridors. Currently there are three stations being established at Picnic Point, Murrumba Rd. Park and Redwood Park. The first stations were planted in December of 2006 and have continued steadily since then.

#### *Propagation of Vines*

Hugh and Kay Krenske have been very dedicated to collecting seed and cuttings of both birdwing food plants, the lowland Birdwing Butterfly Vine, *Pararistolochia praevenosa* and Mountain Aristolochia, *P. laheyana*. With the appropriate permits, they have established a nursery that currently holds in excess of 2,000 vines. Some seed has been col-

lected from local established plants with the majority being collected from the Gold Coast and Sunshine Coast Hinterland.

#### *The Corridors*

Plants will be given to private landholders along the escarpment to plant in their gardens, together with *Pandorea pandorana* as an accompanying "companion" vine. Records will be kept as to the location of the vines and will be periodically checked to look at the health and progress of the vines.

#### *Escarpment Plans for the Future*

With the recent amalgamations of Council areas, it has now made it easier to establish areas right along the escarpment in an effort to create areas that will encourage the butterfly to move where they already exist. The Richmond birdwing butterfly has the potential to be a flagship species for the rehabilitation of the environment in general, and it is hoped that the butterfly will encourage people to become more involved in environmental restoration on the escarpment. Toowoomba Regional Council will continue to support the work of the *Friends of the Escarpment Parks (Toowoomba) Inc.* in its efforts to re-establish the vines.

.....

### **LOCAL PROVENANCE: ESSENTIAL - OR LOCAL NONSENSE?**

*Graeme Wilson*

Restoration of natural vegetation by the community depends largely on the use seedlings which have been propagated for the purpose. There is a widely, and often strongly held belief, that seed used should come only from plants occurring naturally in the area to be revegetated, the origin of such plants called *local provenance*. The rationale is that the parental plants and therefore their progeny are better adapted to the environmental conditions in which the latter are to exist, than material sourced from other environments.

At first sight the logic of that statement is compelling but a closer examination of the situation leads to serious doubts. However, before proceeding, we must be clear about the definition of the *area* we are

## **General Meeting Minutes**

### **The Meeting was held on the 9th May 2008**

at the CSIRO Long Pocket Laboratories, Indooroopilly.

**The President opened the meeting at 10.45** and welcomed members and visitors. He invited those attending to sign the Attendance Sheet.

**Chairperson: President, Dr D Sands.** Attendance as per attendance sheet.

**Apologies:** Rod Goldsworthy, Jenny and Bryan Hacker, Ed Petrie, Eva Ford, Greg Siepen, Helen and Mel Hepburn, Joanna Yesberg, Bev and Peter Hughes, Lyn and Phil Cole, Kay and Hugh Krenske, P Heylingers, Alan Scott, Chaille Twine.

**Minutes:** *Date and location of last General Meeting:* 23<sup>rd</sup> February 2008 at Toowoomba

Minutes of last General Meeting circulated as in the Newsletter no 11.

*Moved be accepted:* Ray Seddon *Seconded:* Graeme Forbes

**Business arising:** nil

### **General Business: Reports**

**Treasurer** – Presented by the Secretary on behalf of the Treasurer (as attached). Moved by Dawn Muir and seconded by Ross Kendall that the Treasurer's Report be received.

**Permits to propagate** – current and future endorsements. Don Sands described the process of gaining permits and the changes in the State Department – with possible changes to the protected status of plants. A reminder that the RBRN permit to propagate and distribute plants must not be used by commercial nurseries, nor tube stock be used. Costs must recovery of costs of propagation.

**Workshops:** The President gave the history of workshops to date and outlined the ones proposed in the future:- Gold Coast 16<sup>th</sup> June and one for Brisbane's Western Suburbs on 16th August. He thanked Phil Moran and Andrew Wilson for their valuable contributions to the vine identities for workshops and for the community members who did the local organising.

**Newsletters & supplements:** The President described the process of both and stressed the importance of the local contributions for the publication.

**Data Base and Mapping.** With Hugh Krenske's unavoidable absence - attached is his statement. It was moved by Pam Seddon and seconded by Dawn Muir that his proposed extensions to the data base and website be adopted. Some concern was expressed that a few records are not yet

vines in an environmental park. I have planted a number of Birdwing vines on my current property and one of these is already fruiting.

A meeting with Pam and Ray Seddon was enough to encourage me to join the RBRN and to start growing *Pararistolochia praevenosa*, the local Richmond birdwing food plant vines. *GMAN* now has a grant to provide materials to extend our native plant nursery and the labour will be provided by our members. We hope to see an increasing number of these beautiful butterflies frequenting the Glasshouse Mountains area as we focus on extending the corridors for the Richmond birdwing.

.....

#### BOOK NOTICE

***Mothology: Discover the magic.*** By Buck Richardson. September 2008. Privately Published. 66pp., full colour, hardback.

This book starts with 11 pages of illustrated introduction. Pages 12-39 consist of colour photos of identified, live moths from Kuranda, Qld - mostly the larger moths and shows approximately 370 species. Pages 40-65 consist of various artistic designs generated by many arrangements of the moth photos. Available from

<infor@leapfrogoz.com.au> for r.r.p \$29.95 - postage free within Australia.

For further information see [www.leapfrogoz.com.au](http://www.leapfrogoz.com.au)

discussing for revegetation, as a source of material from beyond which seed is to be regarded as of external origin. It is possible that we are planning to revegetate an area surrounded by other land which is obviously ecologically distinct, but in most cases there is some continuity with ecologically similar land which simply lies beyond more or less arbitrary boundaries of interest to us. Seed dispersed, or seeds brought across such borders, can hardly be regarded as intruders in to *our local provenance!*

*Are plants closely adapted to where they occur?*

Why assume that any plant is adapted to the environment in which it occurs? If I see a mature tree bearing seeds, I must conclude that *its* parents were sufficiently adapted to *its* environment to have established and prospered, and that the seed which I now propose to collect has a genetic constitution heavily biased towards fitness for an environment of over 100 years ago. It is not unreasonable to apply that thinking further back in time. Environmental change occurs (and we don't need to be reminded of that at present), and species adapt to that (it is known as evolution) if they are to survive. At least on a time scale, some may keep up fairly well but others may lag badly, those with a short generation cycle, such as annuals, being able to change more quickly.

Then there is the question of the area from which we are to collect seed to propagate plants to be used in that area. Many such areas comprise a kaleidoscope of environments; varying geology and soils, aspects, slopes, elevation, adjacent vegetation etc. If a seed-source plant is indeed adapted to where it is growing, it is presumably not adapted to all situations in the designated whole area. Thus non-adapted plants are being introduced to unsuitable sites within the area.

*What harm arises from introductions?*

We should ask what harm is done to vegetation by introducing a less well adapted member of the particular species. It surely can not become a weed or occupy space which might have been occupied by existing plants. However, there is a potential threat in consequence of

hybridization, to locally established species, and this takes us in to genetics. In an oversimplified view of gene action, a gene at one locus in the chromosome complex has a fixed expression in the character it controls, independently of other genes which get on with their own expression. In fact, genes can influence the expression of other characteristics. The argument in our case is this: an adapted species not only has genes whose expression comprises adaptation, but also has an overall gene complex which allows that expression. If however "outside" gene complexes are introduced, they may through hybridization, upset the "harmonious" existing gene complexes which allow local species to express their genetic adaptation.

The importance of such disruption depends on the extent to which a species does possess such a "harmonious" genetic structure. We have already noted that at least many species are likely to be lagging in developing genetic change appropriate to changing environment. Add to this the environmental variation in a plant community (already referred to) with which is likely to associated some local genetic adaptation, and interbreeding among them; then unsettled genetic composition prevails. Furthermore, seeds of many species of plants are often transported over long distances, particularly by birds, the resulting plants then interbreeding with existing plants of the same species and so ensuring on-going genetic change.

*Is there some need for introductions?*

If a species is rare-and that is often the case where original vegetation has been damaged by land use practices- the opportunity for interbreeding is greatly reduced. That may lead to inbreeding which, for many species, is detrimental and can lead to further loss. Whatever may be thought of the desirability of using local provenance, some introduction of "foreign" material should be considered in this situation.

And there is another possibility. If a species with local genetic adaptation is confronted by a changing environment, it will be limited in its ability to readapt by the genes at its disposal. Might it not be better equipped by having a wider range of genes available, which would result from the introduction of material from further afield?

am even more optimistic about the possibilities of the corridor yielding results. With the on-set of winter, a fertilizing program and enthusiastic care from these looking after vines at the RBRN Links, I know there will be some tempting vines available to lay eggs, should any female Richmond Birdwing wander that way!

.....

## **A NEW CORRIDOR FOR THE GLASSHOUSE MOUNTAINS**

***Gwen Malcolm***

After living interstate and overseas most of my married life, I returned to live in Queensland in 1980 and we fell in love with the Glasshouse Mountains. We moved to a 10 acre hobby farm where I soon found myself observing many species of birds and other fauna that frequented our property. I was hooked on the natural assets of this beautiful area, including many rare and endemic species of plants.

I first became aware of the Richmond Birdwing butterfly in the eighties when Dr John Shuttleworth was instrumental in promoting it. I attended workshops run by him and later visited Arthur Powter on his property at Beerwah. I planted my first Richmond birdwing vine in Old Gympie Road on our first property which has sadly been removed by a recent owner.

I have been an active member of *Glasshouse Mountains Advancement Network* (GMAN) since it's inception in 1989. The group was originally an action group opposing massive expansion of a local quarry. Following an unsuccessful court case we became a more proactive group and have been responsible for administering grants to build two walking tracks and participate in numerous revegetation projects in the local area. We now operate a native plant nursery which I manage with a team of volunteers to provide plants to local *Land for Wildlife* members and also donate a considerable number of plants to schools, churches and council parks. As a member of *Land for Wildlife* we have installed a number of nesting boxes on our property, most of them successful in attracting wildlife to our small acreage. Our nursery has raised funds directed to supplying and installing nest boxes in council parkland. I have organized wildlife days in our local area with Geckoes Wildlife to encourage people of all ages to respect our unique fauna. *GMAN* has also planted Birdwing

to bring this butterfly back to its original plentiful numbers.

.....

## REPORT FOR BRISBANE'S WESTERN SUBURBS

*Dale Borgelt*

During late June 2008, I re-visited 12 *Links* in the Brisbane far Western Corridor to gain an overview of how the vines have fared during the past year or so. I have assessed and photographed a third of the Richmond birdwing vines at *Links* in our western corridor. The *Links* visited were numbered: 2, 3, 6, 9, 16, 18, 20, 27, 29, 30, 31, 32 & 33. Given less than favourable weather for much of the period the results were encouraging. Most birdwing vines planted at *Links* had very good survival rates including examples of thriving successes. Growth rates were mostly between 1 and 5 metres but some extremes of 0 and 10+ metres were observed and where there were losses they were mostly explicable. The most rewarding thing I have seen was an old previously-existing and languishing vine at a *Link* that had been spectacularly revitalized once it was given encouragement, enthusiasm and advice from our RBRN participants.

The poorest progress of vines was from *Links* 32 and 33 because they were not able to receive care (including watering) from individual landowners, but were dependent on a small team of volunteers working on two different church-owned properties along Little Gubberley Creek. These vines were also victims of flash floods (when it wasn't bone dry from the long dry spell!) Two things can improve their progress: checking to make sure the vines still have things to climb up and from experience, we are learning that young vines do better when they get some sunlight.

Although there were many really good results among the 250 vines progressing (newly planted under the RBRN corridor plan), my award goes to those looking after *Link* 29 - providing a truly lush and healthy example of a vine growing beside their tank stand, planted in Feb 2007. At the same time they lost 9 out of 10 vines planted in a green gully amid hoop pines. The other 20 planted elsewhere have done well, but none can match their tank stand model! Having seen about one third of the vines planted at *Links* in the Brisbane West Corridor I

## Conclusions

The answer to the question in the heading is "Neither", but somewhere between; just where depending on the local situation. Notwithstanding the fact that local material will not be perfectly adapted to its site, it is surely better adapted than material from elsewhere, and so should be the main source of seed. It remains necessary that seed should be collected from as many plants as possible in order to maintain genetic diversity. That some plants may have come into an area via birds, bats, wind etc is beyond human control and not a factor in decision making. And the possible mismatch between microenvironments of collection and those, into which seedlings will be planted is to be accepted, just as is the likelihood of species being planted in unsuitable spots. On the other hand, we have noted situations where vegetation undergoing repairs may be short of genetic diversity, requiring introduction from elsewhere. Where this is done, the source should be a place of ecological similarity to the destination. The same is acceptable if local seed is unavailable but the species needed. As for the suggestion that increased genetic diversity is required as armament for coping with climate change, a liberal attitude to introductions should suffice.

.....

## COULD *ARISTOLOCHIA MERIDIONALIS* PROVIDE A "BRIDGE" BETWEEN RAINFOREST PATCHES?

*Don Sands*

Recent (2007/08) moist weather in South-eastern Queensland stimulated a marked increase in the health and abundance of the low-growing vine, *Aristolochia meridionalis* in open eucalypt forests. Healthy growth of this uncommon, low-growing plant, has prompted several RBRN members to postulate about the possible role this newly-named vine might play as a "transitory" food plant for the Richmond birdwing in dry woodland, or non-rainforest vegetation behind the sand dunes. Perhaps this vine (if the biomass was sufficient to feed a caterpillar!) could act as a "bridge" for occasional breeding of birdwings in woodland habitats, where the natural food plant *Pararistolochia praevenosa* would not naturally occur and between tracts of rainforest habitats.

The hypothesis is not without some foundation. In northern Queensland in the early 1980s, Prof John Kerr and I observed larvae of the Cape York Birdwing (*Ornithoptera priamus*) breeding at the edge of dry, deciduous vine thickets south-west of Coen, well away from the coast. The larvae were feeding on a vine *Aristolochia chalmersi* O.C. Schmidt, in company with larvae of the common "big Greasy", *Cressida cressida*, and the tropical, Red-bodied Swallowtail (*Pachliopta polydorus queenslandica*). We were not surprised to see the larvae of a Big Greasy at this spot knowing that it is well adapted to breeding on aristolochias of various species in dry vegetation (e.g. *A. pubera* and *A. thozetii*), but we were astonished to see the larvae of the other two which are usually confined to eastern rainforests. On Cape York, *A. chalmersi* tends to be overlooked as a deciduous small vine (to 3 m, but often on the ground), as most visitors are travelling on the Cape during dry times when they can avoid being trapped by flooded creeks - but John Kerr and I were caught up in a very wet period when a cyclone had kept us confined to barracks for days! Leaves of *A. chalmersi* could be easily have been confused with the introduced Dutchman's pipe (*A. elegans*) but the flowers and seed capsules were very different and not as large as those of the latter vine species.

It is well known that the Cape York birdwing has several food plants, especially *A. acuminata* (= *A. tagala*) near the eastern coast and on *A. deltantha* in the more mountainous regions but it was surprising to see it breeding in such dry situations well away from the coast. Subsequent observations by several observers suggest that the Cape York birdwing opportunistically breeds well in-land on dry-adapted aristolochias and may even extend its distribution into the centre of the Cape during abnormally wet periods, when vine growth is suitable for the ravenous large larvae.

Another example may support the hypothesis of occasional breeding by Richmond birdwings in dry woodlands. An observation was made by several experienced people, in September 1950 on Magnetic Island (GAP Weymouth, pers. Com.). There large larvae of Cairns birdwings (*O. euphorion*) were seen breeding on a low-growing, unidentified aristolochia (not *A. acuminata*) in dry woodlands (see record in

## HELPING BRING BACK THE BIRDWING TO MOOLOOLA

*Kylie Walker*

For the past 20 years I have been living and working in Mooloolah. About four years ago my nieces came home from school and told me about the beautiful Richmond Birdwing butterfly and how it was becoming rare on the Sunshine Coast. It was exciting to find out that this beautiful butterfly could still to be seen in Mooloolah and had even in my backyard, although very seldom seen. My nieces and friends then began planting the Richmond birdwing vine, *Pararistolochia praevenosa*, in the Mooloolah School's rainforest plot under guidance from the local expert Arthur Powter. Our meeting with Arthur, his passionate love of birdwing butterflies and wealth of knowledge, increased my interest in helping preserve the Richmond birdwing butterfly.

I soon acquired some *Pararistolochia* vines for my own garden and for my parent's properties and these have been thriving for the past three years. This year, adult butterflies began visiting the gardens and the first birdwing caterpillars were seen on them. I have since planted more vines in our garden and now want to help the community members with planting more vines. I have read many books about the Richmond birdwing, carried out my own research and I find I am still learning more! I have begun studying all the other species of butterflies on my property and found many food plants that are attracting a range of different kinds. In November 2007 I attended a talk by Ray Seddon, from the Richmond Birdwing Recovery Network, and after meeting him my interest in the Richmond birdwing was intensified by his enthusiasm and extensive knowledge – this was just what I was looking for!

I am currently a volunteer at the Sunshine Coast Council's depot at Caloundra where I help with germinating seeds, potting and planting the *Pararistolochia* seeds. I now help Ray and Pam Seddon with talks and displays on the Richmond birdwing and I am very excited with making people aware of the plight of the butterfly and find myself answering many questions that I have asked myself in the past. I look forward to increasing awareness in the community and am ready and keen to play an active roll in the Richmond birdwing's recovery effort,

I recently had the good fortune to visit the small but comprehensive Redcliffe Botanic Gardens. Although I did not observe the butterfly, I did see two very large *Pararistolochia praevenosa* vines which had extended well into the canopy of the rainforest section. Don Perrin, the voluntary curator of the gardens (of about 30 years) has done a magnificent job in designing, planting and maintaining this plant display. There was enough Birdwing vine biomass seen to support many larvae should a female Richmond Birdwing find her way to the site to lay her eggs!

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## MORE NEWS FROM REDLANDS

**Anne Stone**

*The Friends of Eprapah* (a support group), members of the *Scout Environmental Education Centre* at Victoria Point and members of RBRN, are delighted with progress made with successfully propagating and raising good, healthy Richmond birdwing vines (*Pararistolochia praevenosa*) in Redlands. Three of the mature vines have fruited for two consecutive years (providing the seed for propagation), while another 18 vines in the *Butterfly Garden* and *Senses Trail* area, and nearby *Arboretum of Native Plants of Traditional Indigenous and Medicinal importance*, are well on the way to maturity. Brian Howell (RBRN member) has 65 vines ready to be planted in Eprapah in September 2008 and another 100 are ready to be placed in tubes. We would like to use some of the vines to promote educational, planting and maintenance projects in schools and to increase the wider density of vines in the Redlands. We already include a session on the Richmond birdwing butterfly in our Threatened & Endangered Species sessions, for School Programs for visiting students and include a visit to see the growing vines, with pictures to illustrate the butterfly and its life cycle. The visitors usually respond with great interest and excitement when told that they may be able to see a real butterfly in their own lifetimes in Redlands!

*Butterflies of Australia* by Common & Waterhouse 1981). It is interesting to recall (though a long time ago!) that the Red-bodied swallowtail was common in that area at the same time, despite it being so close to the southern edge of its range near Townsville.

To summarise, it seems now possible that the Richmond birdwing may breed during very favourable climatic conditions, in dry, non-rainforest plant communities when there is an alternative food plant present such as *A. meridionalis*. Such a strategy could prevent in-breeding in the longer-term, of butterflies naturally occurring in isolated pockets of rainforest, by ensuring genetic flow between butterfly populations. In addition, such a strategy could explain appearance of occasional sightings of birdwing adults in unexpectedly remote places, such as the Goodnight Scrub west of Bundaberg (S. Scott unpublished) or the breeding on parts of the Great Divide, where *Pararistolochia* spp. has as yet not been recorded. The challenge now is to demonstrate that Richmond birdwings can successfully complete development on *A. meridionalis* and to find the larvae feeding on this plant in field situations.

## CORRIDOR COODINATOR REPORTS

### REPORT FOR REDLAND CITY, EPRAPAH CREEK, MT. COTTON AREAS AND BRISBANE BAYSIDE

**Lois Hughes & Daphne Bowden**

As a recently appointed corridor coordinator for the Mt. Cotton area, it gives me us great pleasure to write this report with advice from Dr John Moss (Redlands). Our vines have all been raised from seed produced from Daphne's Bowden's prolific vines, which she carefully raises and on sells with specific written instructions for their care (in line with RBRN recommendations on planting out. EPA permit etc.). These plants are 18-22 cm high with leaders. As we have not kept records of the localities where these vines have been planted, there may be a lot more in backyards and local school grounds than we are aware of as some of our plants our plants have been distributed over the greater Brisbane area. At displays people are always thrilled to see the vines for sale and are pleased to glean much information about their cultivation, and the

Richmond birdwing butterfly as well. Since the inception of the RBRN we have become more informed and active in this area.

Lois and husband John Bowden, live on a 21 acre property with fertile creek flats, and with typical vine scrub rainforest vegetation edging the spring-fed creeks. It is amongst this growth that I have planted birdwing vines over the last 12 years. Some were planted in deeply shaded areas and have grown slowly or sat dormant, although several are now up into the canopy. I now have quite a number of vines ready to plant out in more suitable areas with greater sunlight penetration. With all the help from recent articles in newsletters we will now be better equipped to better care for them. Since becoming RBRN Corridor Coordinators, we have contacted a number of people in the area, first by mail and then with follow up phone calls. Most people were enthusiastic about becoming involved in planting more birdwing butterfly vines.

We were really excited with the first allocation of 30 odd vines from RBRN, now planted out and entered in the RBRN data base with no losses, although the wallabies have eaten the leaves on one vine so they will need protection on this particular property! The local Redland City Council is assisting re-vegetation an area of creek-side directly opposite our property and I personally participated in planting 10 birdwing vines. I am advising people to add water crystals, some good compost (Brush Turkeys nests are a good source and are prolific in this area) and to also add crusher dust to supply the necessary minerals. Then we gather medium sized rocks and place them around the newly planted vines as a deterrent to the scratching of the Brush Turkeys and the digging of the bandicoots and so far it is working well.

A local quarry owner intends to plant his first birdwing vines which will more than double our number of planted vines in the area to date. So, in our little corner of the world near Mount Cotton, things are starting to accelerate! RBRN Members will soon see many more red dots to the eastern metropolitan areas of your maps and take heart, there are many more of us "out there" doing our part to bring to reality, the vision of recovering the birdwing south and east of Brisbane!

## NOTES BY REDLAND'S COORDINATOR

*John T. Moss*

I am pleased to report that 28 vines planted in March 2007, in the Butterfly Garden at the Eprapah Scout property, Victoria Point, have grown "in leaps and bounds". Many are already into the canopy thanks to good seasonal conditions we have had in the Shire. In addition, 8 vines planted in 2003/2004 (by a Green Corps team under my direction) have responded to the good conditions by flowering and fruiting – one prolifically. Progeny this one vine, all held in 12 cm pots are now well advanced and ready to plant out. The Redland Council's native garden centre at Runnymede Road, Capalaba ("IndigiScapes"), has two very large vines in their rainforest garden, plus several smaller ones in their butterfly garden that were more recently planted. Further vines are being considered for introduction, especially to replace some of the rampant "Monkey Rope" vines which had been so destructive on the Swamp Box (*Lophostomen suaveolens*) melaleucas and casuarinas in the grounds and surrounding bushland.

The 30-odd birdwing vines planted early in 2006 (on the Shire boundary) near the junction of Buhot and Tingalpa Creeks, were inspected recently by Peter Hendry and myself. We were involved with the original planting of these vines, coordinated by BCC, and managed by RBRN Corridor Coordinator, Sally Jenyns. However, we were only able to find ten of the original vines. Only a few of were thriving and others needed more attention. A few persisted and were climbing into the canopy but there had been much competition at that site, especially from other native vines such as *Morinda jasminoides* (which is the host plant of several hawk moth species). Under the circumstances this result with the birdwing vines is to be expected.

There have been many more individual vines planted in the "shire" (we are now a City!) and recognized are a few historical plantings that are to be passed on to Hugh Krenske for the RBRN database. A GPS unit on loan has been used for latitude and longitude recordings and we thank the *Butterfly & Other Invertebrates Club* for letting us use it. With a valid property address and the help of *Google Earth* these locations can be checked and confirmed.