

## The butterfly

With an adult wingspan of up to 16cm the Richmond Birdwing Butterfly (*Ornithoptera richmondia*) is one of Australia's largest butterflies. The females have a mix of dark brown or black, white, cream and yellow markings while the males have distinctive iridescent green or blue markings. Combined with their large size the males in particular are quite beautiful and striking. They are only found in the coastal and hinterland parts of South East Queensland and northern New South Wales. Due to threats from habitat destruction as well as introduction of an invasive weed species, they are now listed as a Vulnerable species in Queensland.



Female Richmond Birdwing Butterfly; Image: Richard Bull



Male Richmond Birdwing Butterfly; Image: Elliot Bowerman



Richmond Birdwing Butterfly larva; Image: Richard Bull



Richmond Birdwing Butterfly larva; Image: Phil Moran



Richmond Birdwing Butterfly larva; Image: Phil Moran

According to the Department of Environment and Science, a Vulnerable species has:

- a population that is decreasing because of threatening processes, or
- a population that is seriously depleted and its protection is not secured, or
- a population that while abundant, is at risk because of threatening processes, or
- a population that is low or localised or depends on limited

habitat that is at risk because of threatening processes.

### The Birdwing Butterfly Vine

The larva (caterpillar) has only two legitimate food sources, the Birdwing Butterfly Vine (*Pararistolochia praevanosa*) and Mountain Aristolochia (*Pararistolochia laheyana*) at higher altitudes. These vines emit pheromones to attract the butterfly.



Birdwing Butterfly Vine, a Near Threatened native vine; Image: Jasmine Connors



Birdwing Butterfly Vine leaf; Image: Jasmine Connors



Birdwing Butterfly Vine flower; Image: Ian Gynther



Birdwing Butterfly Vine seed capsule; Image:  
Ian Gynther



Birdwing Butterfly Vine ripe seed capsule;  
Image: Rosie Booth



Birdwing Butterfly Vine dried seeds; Image: Ian  
Gynther

The Birdwing Butterfly Vine has been listed as Near Threatened in Queensland, which means that it has:  
a population size or distribution that is small and may become smaller; or  
a population size that has declined, or is likely to decline, at a rate higher than the usual  
rate for population changes for that species; or  
the survival of the species in the wild is affected to an extent that the species is in danger of  
becoming vulnerable.

Near Threatened species are protected by law, and can only be collected or propagated with a permit.  
There is information about where to buy the vine on the [Richmond Birdwing Conservation Network's](#)  
website. Additional suppliers include:

[Coolum Community Native Nursery](#)

[Mooloolah Landcare Nursery](#)

[Noosa and District Landcare](#), and

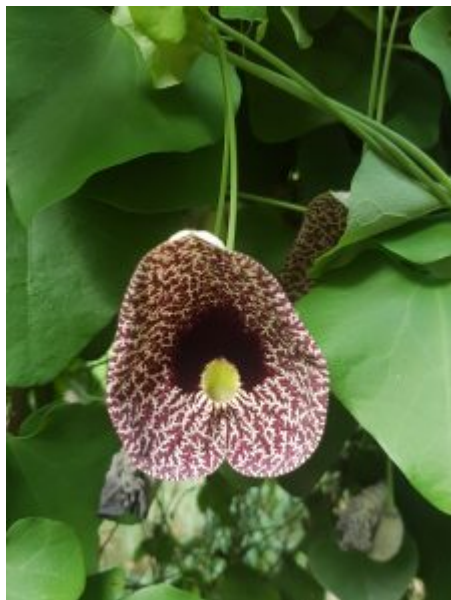
[Barung Landcare Community Nursery](#).

### **The Dutchman's Pipe**

Unfortunately an escaped garden vine, originally from South America, the Dutchman's Pipe (*Aristolochia elegans*, also known as *Aristolochia littoralis*), emits an odour which also attracts the butterfly. The attraction to the Dutchman's Pipe is so strong that even when a Birdwing Butterfly Vine is nearby the butterfly will still be more attracted to the Dutchman's Pipe. Sadly, when eggs are laid and hatch on the Dutchman's Pipe then the caterpillars are poisoned by eating the leaves. For this reason we at ECollaboration have dubbed the Dutchman's Pipe the "Pied Piper of the Richmond Birdwing Butterfly".



Dutchman's Pipe, a Category 3 Declared Weed; Image: Elliot Bowerman



Dutchman's Pipe flower; Image: Elliot Bowerman



Dutchman's Pipe leaf; Image: Elliot Bowerman



Dutchman's Pipe seeds; Image: Forest & Kim Starr



Dutchman's Pipe seeds; Image: Forest & Kim Starr

The Dutchman's Pipe is now a serious weed in natural environments and is classified as a Category 3 Invasive Plant in Queensland. This means that by law, it must not be distributed either by sale or gift, or released into the environment. Eradicating the vine through weeding is a way that we can help to keep it under control, but as it is poisonous gloves should be worn. It is a good idea to have the identification confirmed by someone experienced in plant identification until you are comfortable identifying it yourself, as there are native vines in the Aristolochia and Pararistolochia families which may be confused with the Dutchman's Pipe.

### Plant Identification

The Birdwing Butterfly Vine and the Dutchman's Pipe might smell identical for a Richmond Birdwing Butterfly, but it is simple to tell them apart by their appearance. The easiest way to tell them apart is from their leaves. The Birdwing Butterfly Vine leaves are narrow with a sandpapery texture, while the Dutchman's Pipe leaves are heart shaped and hairless. They also have quite distinctive seed pods. The Birdwing Butterfly Vine seed pods are oval and fleshy, needing to be cracked open before the seeds inside fall to the ground, where they are usually eaten and dispersed by Brush Turkeys. The Dutchman's Pipe has long , segmented seed pods, which split open without help and the seeds are blown away by the wind.

The following table shows the visual features of the two species:

	<b>Birdwing Butterfly Vine</b>	<b>Dutchman's Pipe</b>
<b>Vine</b>	Erect, 10-20 m	Fast growing. Grows as a dense mat.
<b>Stems</b>	Flattened, 1-2 cm diameter. Leaf stalk 1-3 cm long and hook shaped	Woody, slender, tightly wound around
<b>Bark</b>	Cork-like, raised, net-like pattern (like a giraffe)	Cracked, corky or spongy brown, (when rubbed off smells like acetone)
<b>Leaves</b>	Sandpapery texture, Alternate, Lanceolate shaped (narrow oval shaped to a tip each end)	Alternate, hairless, Glossy green, broad and heart shaped, undersides paler bluish green.
<b>Flowers</b>	2.5 cm long, tubular (like a pitcher), pinkish with bright yellow on inside	Tubular (like an actual Dutch Pipe), pale reddish-purple with white and yellow blotches
<b>Flowering period</b>	September- November	December- February
<b>Seed pod</b>	Orange, oval shaped capsules with a fleshy centre. Seeds are beige, heart shaped seeds, about 7mm. Approx 50 seeds per capsule.	6 mm, flat, segmented, papery capsule. Seeds are papery, tear shaped. Approx 350 seeds per capsule.

## Species Recovery

Much has been done over the years to restore the Richmond Birdwing Butterfly's habitat by removing the Dutchman's Pipe and planting more of the Birdwing Butterfly Vines. The [Richmond Birdwing Conservation Network](#) has been the key group leading the conservation effort with projects including mass planting of the native vine, mapping the spread of the Dutchman's Pipe, raising and releasing the butterfly into the wild, and modelling the impact of climate change on the butterfly. The network also records sightings of the butterfly, which assists with mapping out their current habitat. You can learn more about each project on their website. You can also learn more about how to identify the butterfly, the native host plants, and the Dutchman's Pipe weed on their [alternative website](#).

## The Impact of Weeds on our Catchments

The plight of the Richmond Birdwing Butterfly is an example of the wider impacts of habitat destruction caused by introduced species. The introduction of one plant has severely threatened the entire population of a species of butterfly. All over our landscape, weeds that have escaped from cultivated gardens are outcompeting our native plants and have the potential to completely change habitats.

A drastic example of this in South East Queensland is Cat's Claw Creeper (*Dolichandra unguis-cati*), which can smother and pull down entire forests if left untreated. Shallow rooted weeds such as Singapore Daisy (*Sphagneticola trilobata*) are lining waterways and contributing to river bank erosion. They have overtaken native species such as Sandpaper Fig (*Ficus coronata*), which have a strong root system and hold river banks together in rain and flood. Creeping Inch Plant (*Callisia repens*) is easily spread by water and takes over groundcover along waterways. This prevents the germination of native plant seeds, including trees.

The health of vegetation along our creeks, as well as throughout our catchment, directly affects the water quality flowing into our drinking water supply, and ultimately into our estuaries and oceans.



Cat's Claw Creeper has the potential to smother entire forests; Image: Mark Marathon



Singapore Daisy is overtaking creek banks and contributing to erosion; Image Source: Wikimedia Commons



Creeping Inch Plant has the ability to overtake ground cover; Image: Forest & Kim Starr

### Individual Actions

There are many things you can do to assist with the recovery of the Richmond Birdwing Butterfly, as well as protecting our waterways from the impact of weeds.

Contribute as a Citizen Scientist by learning how to identify the Richmond Birdwing Butterfly, Birdwing Butterfly Vine, and Dutchman's Pipe and reporting your sightings using the form below.

Join or donate to the Richmond Birdwing Conservation Network: [wildlife.org.au/richmond-birdwing-conservation-network](http://wildlife.org.au/richmond-birdwing-conservation-network)

Educate children about the Richmond Birdwing Butterfly: [wildlife.org.au/shop/merchandise/birdwings-new-home](http://wildlife.org.au/shop/merchandise/birdwings-new-home)

Remove the Dutchman's Pipe weed from your property. Find out if the Birdwing Butterfly Vine is suitable to plant on your property. There is information about where to buy the vine on the [Richmond Birdwing Conservation Network](http://Richmond Birdwing Conservation Network)'s website. Additional suppliers include [Coolum Community Native Nursery](#), [Mooloolah Landcare Nursery](#), [Noosa and District Landcare](#), [Florabunda Nursery](#) and [Barung Landcare Community Nursery](#).

Shop at native plant nurseries, and plant local native species on your property.

Dispose of your lawn and garden clippings appropriately by composting them, putting them in your Green Waste bin, putting them in your General Waste bin, or taking them directly to the tip. Some council's charge a fee as low as \$5 for a small trailer load to dispose of domestic garden waste. Find and join your local bushcare group and participate in weeding and planting activities to protect your local waterway from invasive species. Most councils have a list of bushcare groups available on their website:

[Noosa Council](#)  
[Sunshine Coast](#)  
[Brisbane](#)  
[Redlands](#)  
[Moreton Bay](#)

### Reporting Form



In the last 5 years, have you seen the Richmond Birdwing Butterfly (adult or caterpillar), the Dutchman's Pipe, or the Birdwing Butterfly Vine? Please use the form below to tell us what you've seen. Use the message box to provide any extra information, or contact us directly to ask questions by emailing [info@ecollaboration.org.au](mailto:info@ecollaboration.org.au).

The information collected will be shared with the [Richmond Butterfly Conservation Network](#) as well as the [Living Atlas of Australia](#), where it will be used to inform decision makers about the status of the vulnerable Richmond Birdwing Butterfly and near threatened Birdwing Butterfly Vine.

**Your Name (required)**

**Your Email (required)**

**Your Phone Number**

**What Did You See?**

Please choose between: Richmond Birdwing Butterfly / Birdwing Butterfly Vine / Dutchman's Pipe

**When Did You See It?**

Please give us a rough date - it does not have to be exact. We are interested in sightings within the last five years.

**What Time of Day Did You See It?**

Please give us a rough time of day - it does not have to be exact.

**Where Did You See It?**

Please be as specific as possible - we love coordinates! Or provide an address, nearest landmark, crossroad, etc.

**What Habitat Did You See It In?**

e.g. rainforest, garden, etc.

**How Many Did You See?**

Please list number of butterflies separate from number of plants

**What were the butterflies doing?**

Please choose between: Flying alone, Flying as a pair, Resting, or Breeding

**Do you have any photos to upload of what you saw?**

The file size limit is 2MB per file and only the following file extensions are permitted: jpg, jpeg, png, gif

If you have more than three photos, please mention it in the Message Box below and we will contact you for your remaining photos

**Do we have your permission to report this sighting to the Richmond Birdwing Conservation Network and the Living Atlas of Australia?**

Please type Yes or No

**Any Other Notes or Message**

Thank you for participating in Citizen Science!

**More Information**

Want to know more? Here are some recommended resources:

[www.richmondbirdwing.org.au](http://www.richmondbirdwing.org.au)

[wildlife.org.au/richmond-birdwing-conservation-network/](http://wildlife.org.au/richmond-birdwing-conservation-network/)

[Department of Environment and Science Richmond Birdwing Butterfly profile](#)  
[Richmond Birdwing Butterfly factsheet](#)  
[Birdwing Butterfly Vine factsheet](#)

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[https://bruceboyas.info/wp-content/uploads/2010/01/1998\\_SE\\_QLD\\_Rainforest\\_Conference\\_Proceedings.pdf#page=132](https://bruceboyas.info/wp-content/uploads/2010/01/1998_SE_QLD_Rainforest_Conference_Proceedings.pdf#page=132)  
<http://www.richmondbirdwing.org.au/faq.php>  
[http://www.saveourwaterwaysnow.com.au/01\\_cms/details\\_pop.asp?ID=771](http://www.saveourwaterwaysnow.com.au/01_cms/details_pop.asp?ID=771)  
<https://www.business.qld.gov.au/industries/farms-fishing-forestry/agriculture/land-management/health-pests-weeds-diseases/weeds-diseases/invasive-plants/restricted/dutchmans-pipe>  
[http://www.brisrain.org.au/01\\_cms/details.asp?ID=326](http://www.brisrain.org.au/01_cms/details.asp?ID=326)

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