

The Darling Downs NATURALIST

Popularising and encouraging the study of natural history on the Darling Downs and fostering the conservation of fauna and flora in the area.

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P.O. Box 133
Toowoomba Qld 4350

The deadline for the next newsletter will be Friday 17 February

Newsletter No. 715

**CLUB MEETINGS are held at St Anthony's
Community Centre, Memory Street, Toowoomba.**

February 2017

CLUB ACTIVITIES

CLUB MEETING:

Friday 03 February at 7.00pm. Past Club member Gordon Claridge, will speak about the koala counting project.

CLUB OUTINGS:

January Get-together, Sunday 22 January 2017

Where: John Trousdell Memorial Park at Cotswold Hills

When: 4.30pm

What: Walk followed by barbecue or picnic meal. There are several kilometres of easy concrete paths, including one leading to a view of Gowrie Mountain. There are natural areas (fenced off) and there should be birds to see.

Please bring: Your own food etc., and chairs. Please also bring a dessert of some kind to share.

Facilities: Toilets, barbecue/s and a shelter.

How to get there: From Bridge Street, turn right into Gowrie Junction Road, then right into Cotswold Hills Drive, following right-hand branch at the point where it splits in two. Hamzah Drive is the first turn on the left.

February Outing: Saturday 04 February, Spotlighting, Gray Residence, Cooby Dam

Times: Gate open from 6.30pm. Spotlighting from 7.15pm. (Arrive before 6.45pm to get there in daylight.)

Meet for carpooling: Southernmost of the two Neil Street car parks, for a 6:30pm departure. Otherwise meet at Grays', "Jarowair", Rodeo Drive, near Cooby Dam

Activities: Spotlighting walk around Brendan and Judi Gray's wildlife-friendly property. We may see koalas and other mammals, as well as frogs, and whatever else is out there at night.

Further spotlighting, if time allows, at the Charles and Motee Rogers Reserve, Polzin Road (near corner with O'Brien Road). We might see gliders there.

Bring Torches with strong directional beam, if you have them. Otherwise, weaker torches will help you watch the ground so you won't stumble as you walk. Trish will bring red cellophane to cover torches and camera flashes, to reduce harm to the wildlife.

Directions: Take New England Highway north to Highfields; left at second traffic lights (Highfields Rd.). Follow to end of road, turn right. First left into Kleinton School road. Left into Klein Road; right into Cooby Dam Road (stay on bitumen). Second right. This is Rodeo Drive but is not named. The property name "Jarowair" is very obvious, at end of road.

(Leader - Patricia Gardner)

MORETON BAY FIGS IN NEW ZEALAND (by Patricia Gardner)

Further to John Swarbrick's article in the last newsletter, I thought members would be interested in what we learned about the species in New Zealand early last year.

Older parks in New Zealand have some magnificent specimens of these trees. As John pointed out, pollination of figs is done by tiny wasps, with each fig species having a symbiotic relationship with its own pollinating wasp species. In the absence of their particular wasp (*Pleistodontes froggatti*), the New Zealand specimens of Moreton Bay fig were sterile. They produced "fruits", but the fruits contained no seeds.

However, the wasp arrived in New Zealand in 1993, moving the New Zealand Moreton Bay figs into a whole new phase. They are now able to produce viable seed, and little seedlings are turning up as epiphytes on both introduced and native tree species.

How did the insects get there? They may have blown in on the wind. Many insects from Australia arrive in NZ every year. Butterflies, in particular, attract attention when they do. *P. froggatti* have it tougher, because adult females live for only three days. Winds strong enough to get them to NZ do occur every year, but it has taken more than a hundred years for Australian wasps to colonise the New Zealand Moreton Bay figs, so it can't have been happening very often. Wasps in suitable readiness for egg-laying may have been turning up, from time to time, for many thousands of years, but like so many displaced insects they would have simply failed to breed because they couldn't find a suitable host plant. Human introduction of their host tree has now enabled the insect to increase its range to New Zealand.

Moreton Bay figs are very large, vigorous, and fast-growing plants which eventually strangle their hosts. It will be interesting to see what effect they have, in the future, on the native flora. Alas, they may not be good news for New Zealand's beleaguered remnants of native forest.

THE SPANISH CHESTNUT TREE on the CORNER of WEST and NELSON STREETS, TOOWOOMBA – The JOHN HANDLEY TREE

(by J T Swarbrick, December 2016)



The John Handley tree is the Spanish or sweet chestnut (*Castanea sativa* L.) tree which is growing on the wide verge on the south-eastern corner of West Street and Nelson Streets in Toowoomba. It is the oldest exotic tree known to have been planted in Toowoomba, and the best documented tree in the city.

The tree is now a vigorously sprouting stump - a relic of a once much larger and taller tree. It is leafy in the

summer and leafless in the winter. The remaining tree is about seven metres tall with a canopy spread of about nine metres, whilst the stump is about 1.7 metres thick. The stump and main branches are all extensively rotted internally, greatly weakening its structure and preventing much further growth. All of the growth now is of short lateral shoots that do not persist to grow into branches.

In about 1870 John Handley obtained four blocks of uncleared land totalling over a hundred acres about a mile north of Drayton, the town at the top of the Great Dividing Range that preceded and gave rise to Toowoomba. He cleared much of the land and built a house and farm buildings (since removed), established five acres of productive gardens, vineyards and orchards, and developed the rest as grazing paddocks. He called his land Paradise Farm.



The Handley tree in 1983
(Photograph by courtesy of the Handley family)

Jane and John Handley (Photographs by courtesy of the Handley family)

Local historian **Mr Bob Dansie** quotes from a rural correspondent to the **Darling Downs Gazette in 1878**: *'The property [of Mr John Handley] is situated at the end of West Street about one mile from Drayton. ... The owner has given the name Paradise Farm to his place ... A gateway leads from the road up to the house [now Baker Street], on the left of which is planted a row of Spanish Chestnut trees'*. This row would not have included the Handley tree. *'He planted eleven Spanish Chestnut trees about five years ago, which have grown up well and look handsome trees. They were grown from suckers obtained from the nursery of Mr. Ferguson, Camden, near Sydney ... All of the lower branches have been lopped, leaving in most of them just the trunk growing up straight and surmounted by a crown of branches and foliage'*. It is assumed that the Handley tree would have been planted from the same or similar stock at about this time, but this is not certain.

An extract from **'A Folk History of early Drayton and Toowoomba as told by Jacob Dorges'** (edited by Rae Pennycook and printed by the Toowoomba Education Centre) reads: *'This [Paradise Farm] was purchased by the late John Handley Snr. approximately 100 years ago. ... There was a row of tall English chestnut trees on one side of the drive ... and [they] were also planted around the boundary of the horse paddock and hay-shed. A few of these old chestnut trees are still alive though showing the effects of age.'* It is assumed that the Handley tree is one of the latter.

In 1983 the Handley family erected a stone beneath the tree carrying the inscription: *'This Spanish chestnut tree commemorates an avenue of these trees planted by John Handley of Paradise Farm in the years 1865-1875. This plaque was unveiled by his descendants on 2-4-83'*. At about the same time a photograph was taken of the tree, which appears to have been about 8 metres tall with a dense canopy about 14 metres wide, much the same height that it is today but with a wider canopy.

In January 2007 a report on the health of the tree was to given to Toowoomba City Council by Mr Adam Tom, Consulting Arborist. He noted that the tree was 8 metres tall with a canopy width of 10 metres and a trunk diameter at breast height of 1.42 metres. The tree's vigour was *'Very good as is evidenced by good leaf colour, leaf size and prolific epicormic sprouting'* whilst its vitality was *'Very good as is evidenced by good shoot extension and canopy density.'* No insect pests were noted but the tree exhibited extensive fungal decay and hollowing of the root crown, trunk and branches to 150 mm diameter. All of the original structure of the tree was affected by the decay but not the epicormic growth. Most of the original canopy structure had been lost as a result of poor pruning practices and structural failure due to the fungal decay. The fungal decay was estimated to affect about 70% of the cross-sectional area of the trunk and remedial action was required. Mr Tom's conclusion was that the tree was in good health but of poor structure and that it required *'some minor maintenance'*.

During the summer of 2012/2013 a car crashed at the intersection of West and Nelson Streets, stopped below the tree and caught fire. The fire caused extensive damage to the southern side of the tree, including the loss of several major (but mostly hollow) branches and the death of the bark over much of the affected area. The damaged limbs were carefully pruned by Council staff. Photographs of the tree in August 2013 are below.

Spanish or sweet chestnut trees are native to southern Europe and Asia Minor where they are widely cultivated for food, and whilst they grow well in the warmer and moister parts of south-eastern Australia they do not grow well in Toowoomba. There is another young tree in the Toowoomba Botanic Gardens. In Europe they are substantial trees, growing to 25 metres tall with wide-spreading branches. The trees are deciduous, leafless in the winter and flowering among the leaves in summer. The male and female flowers are carried on erect catkins with the male flowers at the top. Spiny fruits appear in the autumn, each containing several fat brown chestnuts which fall with the leaves in early winter. These fruits also appear on the trees in Toowoomba, but contain no seeds.

Whilst the trees are highly ornamental in larger parks and open countryside, they are grown principally for their seeds which have formed an important part of the southern European diet for over two thousand years. The nuts are normally roasted to remove the thin tough astringent skins, leaving a rich oily seed which is tasty and nutritious. They may be eaten freshly roasted, as stuffing for poultry, in soups, in confectionary or in other ways. Creamed and flavoured with vanilla they become marron.



The leafless Handley tree in August 2013 from the north, and the fire damage to the eastern side of the tree



Left: The young Spanish chestnut tree in the Toowoomba Botanic Gardens, March 2013

Right: Fruits and leaves of a Spanish chestnut tree, March 2013

A VERY STRANGE CREATURE (by Glenda Walter)

Some insects have strange and unexpected habits. Here is the life story of *Anestia ombrophanes*, the Clouded Footman moth. On a tree in the park at West Creek I happened upon a small caterpillar (Image 1) about 18 mm long on the trunk of a Eucalypt. It was not feeding or doing anything special. On another tree close by, I saw a strange cage-like structure with a pupa inside which had pink spots like the caterpillar (Image 2). I posted the images on Bowerbird (a nature website), and found that this insignificant caterpillar is a strange little creature indeed.

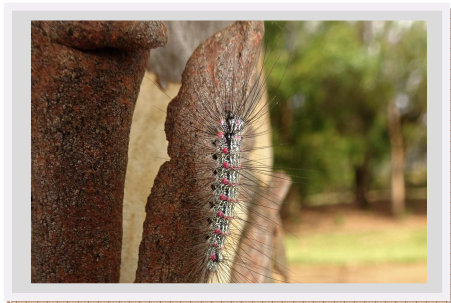


Image 1



Image 2



Image 3

When the caterpillars are ready to pupate, they shed the irritating hairs (setae) which cover them, and form them into a cage in which they are protected (Image 3). When they emerge, the male moth (Image 4), about 10 mm long, is brown and white with yellow hind wings and is normal-looking. He is able to fly, but the female stays on the hair structure until the male arrives to mate with her. She is wingless, a fat little pink and grey legged insect about 8 mm long (Images 5, 6). The male then departs, and she lays several eggs on the hair cage (Image 7), after which she dies. The eggs are thus protected until the tiny caterpillars hatch.

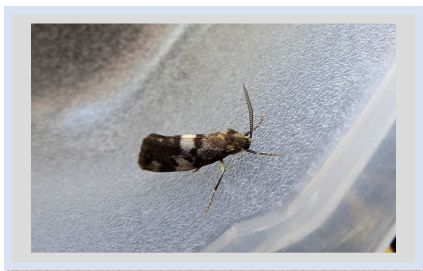


Image 4

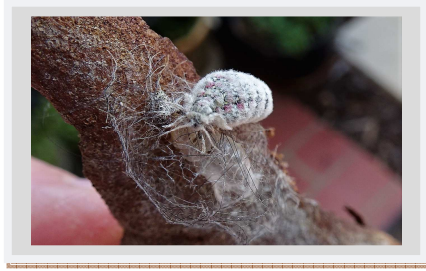


Image 5



Image 6

I collected a caterpillar and a pupa, keeping them for several days until the adults emerged, fortunately a male and a female. Some eggs were laid before the female died, which I will keep until (hopefully) I have minute pink-spotted caterpillars. They are said to feed on lichen.

Would you ever have imagined this bizarre behaviour? Apparently there are several species of caterpillars which build cages from their hairs, but not all of them have wingless females as does *Anestia ombrophanes*.

Thanks to Brett from Bowerbird, Wes Jenkinson, and Geoff Montieth for identification and information. Also see the website Coff's Harbour Butterfly House.



Image 7

FROM THE EDITOR

As there was no meeting or outing to report on in December, I have included photos taken at the Christmas lunch. Thanks to Lauren Marlatt for these. I enjoyed a holiday in Tasmania in December with perfect weather while at Cradle Mountain National Park.

Barbara Weller

PHOTOS taken at CHRISTMAS LUNCH (by Lauren Marlatt)



TOOWOOMBA FIELD NATURALIST CLUB Inc.

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MEETINGS-OTHER	
Club Centre Meetings:	First Friday each month (except when there is a camp-out) at 7.00pm. St. Anthony's Community Centre, Memory Street, Toowoomba.
Monthly Outings: Excursions, Camps etc	Sunday – following the Friday meeting. As advertised at meetings and in the Newsletter.
Newsletter:	Published and mailed or emailed monthly, just prior to the meeting. Submissions are due on the Friday two weeks before the next meeting: They can be posted or emailed to the Newsletter Editor.
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ANNUAL SUBSCRIPTIONS	Due in July. Pro rata for new members joining later. Single \$30.00; Family: \$40.00, Pensioner/Concession \$25.00/\$35.00; Country Membership \$25.00/\$35.00. NEWSLETTER POSTAGE CHARGE: \$11.00pa, OR a free copy can be collected at each meeting. Life and Honorary members, and members who don't have email access, are not asked to pay this charge. Payment can be made directly to the TFNC account at the Heritage Bank. BSB No: 638080. Account No. 1676067. Please include your name.

This Newsletter was printed courtesy of the office of Trevor Watts MP, Member for Toowoomba North.