

MAY MEETING -

Waterwatch

Our speaker was Dierdre Murphy who told us about her involvement with the Waterwatch Program on the Barwon River. Deirdre is employed by the Corangamite Catchment Management Authority and coordinates the region's Waterwatch program. This program aims to collect water quality data from rivers, wetlands, lakes and estuaries in the Corangamite catchment. The program has a strong emphasis on community involvement and engages and with schools, groups individuals to provide monitoring data and in the process raise awareness of river health issues in the community.

Habitat surveys record the condition of the surrounding landscape and in stream condition at a monitoring site. Surveys are performed annually and evaluate bank stability and condition, and the species and amounts of vegetation present.



Dierdre at work – Photo CCMA

Water quality tests are performed monthly including temperature, dissolved oxygen, pH, electrical conductivity, phosphorus and turbidity. These water condition indicators are critical to the health of water bodies and the survival of aquatic plants and animals. Diedre had members come forward and perfrom these tests on a sample of the Barwon water she had collected earlier in the day.

Aquatic macro-invertebrate surveys are conducted in autumn and spring. Aquatic macro-invertebrates are small animals without a backbone, and include dragonflies, aquatic snails, yabbies, and water mites. They depend on freshwater for all or part of their life cycle and are a critical part of food webs within and around fresh waterways. Aquatic plants and animals are sensitive to changes in environmental conditions and their abundance and diversity will reflect any change in water quality.

A number of trays were provided and the animals Dierdre had collected were tipped into them for the members to examine and marvel at. Though species diversity was limited, the number of animals in the small sample was a testament to the healthy condition of the Barwon in Geelong at present. There were many bugs, beetles and predatious beetle larvae. There were water boatmen and backswimmers, damselfly larvae, caddis-fly larvae and many more.



Corixidae – Water Boatman The general consensus was that we don't play in wetlands, swamps and rivers anywhere near as often as we should ⁽²⁾

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Phil Vaughan

It was nice to see Phil and Alexis return to APS Geelong meetings and we immediately took advantage of the situation by asking Phil to conduct the plant table.

He himself had brought along some magnificent, and some yet to be released, grevilleas that had me and my fellow Grevilleaphiles drooling.

Among them was a startling orange hybrid of *G. bipinnatifida* and *G. thyrsoides*, with huge deep-coloured blooms. There was a lovely upright flowered, sulphur yellow one called, "Silver Sulphur", and another called "Golden Lyre', deriving from *G. formosa*. There was also a lovely white one, *G. subtiliflora*, will prickly deeply divided leaves, and a heavy scented flower.

There were some lovely Eremophilas, mostly E. maculata cultivars and hybrids, displaying a startling array of colours.

Harry brought along two climbers, Billardiera erubescens, with deep red flowers, and B. pungens with yello/orange flowers. Both grow vigourously and need some attention to keep them under control.

Correas featured strongly with many delicate pink and orange flowers evident. One striking white one was noted. Marageret Guenzel believes it to be a white prostrate form of C. pulchella.

Also of note was a lovely Crowea seedling from John Bell's garden, and a beautiful *Isotoma axilaris* from Margaret. It has large deep purpkle flowers, and she says will grow readily in any moist area.

PLANT of the MONTH Grevillea Pink Surprise

June Parrott won the raffle and had the honour of choosing the plant of the month. With some not too subtle hints from me, she over-looked one of my specimens and chose instead Grevillea 'Pink Surprise' from John Bell's garden. John writes:

This grevillea is a hybrid between *Grevillea whiteana* and *Grevillea banksii*, and although it was probably bred for the sub tropics it does quite well in our southern climes. Its best feature is its ability to throw lovely pink and white terminal cylindrical flower spikes which can be up to 18 cm long and are very striking to observe. My bush is 2.5m high and is about 3m across and is about 10 years old. It has never been pruned and thus is now a bit woody, but still flowers readily. I find them to be hardy in our windy cool situation and they are usually available in good nurseries.



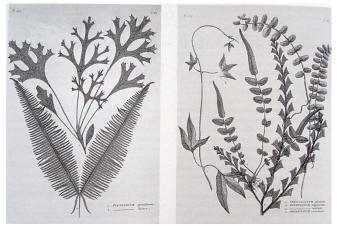
Grevillea 'Pink Surprise'

THE FIRST PLANTS COLLECTED FROM AUSTRALIA By Tony Cavanagh

From the way Australian history was taught to most of us at school, it is probably fair to say that we were all left with the impression that Captain Cook "discovered" Australia (as it is now called) in 1770. It is only in more recent years that the role of the Dutch in discovering and mapping parts of Australia before Cook has received any attention. It comes as no surprise, then, that specimens of Australian plants were collected well before Cook's time, but on Australia's western coast; Cook did indeed discover our eastern seaboard. The following deals briefly with the early history of the discovery of Australia but concentrates on the work of two, a Dutch sea captain and an English adventurer, who were responsible for collecting the first Australian plants.

We now know that it was Willem Jansz (more correctly Janszoon) in the small pinnace or yacht Duyfken (little dove) who made the first known contact with Australia when he reached the western side of Cape York in March 1606. He travelled some 200 miles along the coast before sailing back to Batavia where a very negative report on the country and its people was made. Over the next 90 years or so, dozens of Dutch navigators and the odd English one (the East India Company vessel Tryal was wrecked off the Monte Bello islands in 1622) reached the west coast of this unknown continent. Many of these contacts were accidental, ships blown off course or due to navigational errors, for example, but after 1623, several serious exploration voyages were mounted, including probably the best known, that of Abel Tasman in 1642-3 during which he discovered Tasmania (named by him Van Diemen's Land).

Fast forward now to December 1696 when we find the Dutch captain Willem de Vlamingh in the ship Geelvinck anchored off the south west coast of what is now Western Australia, near an island populated with "rats as big as cats" and where a large river entered the sea. He named the island Rottenest (Rats' Nest) but the rats were actually quokkas, the first known sighting. Around the 10-12 of January, 1697, Vlaming and a boat crew rowed some 30 km up the river, to where Perth now stands, and after recovering from his surprise at seeing BLACK swans, named the river the Swan River. And it is here that some believe that the very first Australian plant specimens were collected, now named Acacia truncata and Synaphea spinosa. It is impossible to be definite as there is no mention in any surviving ships papers or documents about collecting plants and indeed, there appear to be no other records of any Dutch expeditions to Australia collecting plant specimens. It's just that these species only grow in this part of WA and Vlamingh was the only person known to be in the area. The specimens were brought back to Java and eventually finished up in a Herbarium in Geneva, Switzerland. We'll return to this story in a few minutes.



Synaphea and Acacia – first described as ferns

Some nine years earlier, in January 1688, another ship had reached the north west coast of WA and anchored in what is now King Sound (north east of present-day Broome). This was the Cygnet under master John Reed/Read, a privateer ("pirate ship") who had among the crew the adventurer William Dampier. While the ship's hull and sails were repaired, Dampier spent time ashore and recorded details of natural history and described the local aborigines in detail. He collected no specimens but in 1697 published an account of his adventures A New Voyage Round the World. The book was highly successful and brought Dampier fame as an expert on the peoples and natural history of obscure countries. Hence when Dampier asked the British Admiralty in 1698 for a ship to explore "New Holland and seek commercial prospects", he was given the 290 ton, sixth-rate naval ship *Roebuck* with a crew of 50 and Dampier as master. They reached the coast south of Shark Bay in August 1699 and Dampier was to make three known landings over August and September where he gathered natural history specimens. He left the coast at Lagrange Bay, south west of present-day Broome, in mid September and sailed to Timor, intending then to go on to England. The *Roebuck* was in poor condition and was abandoned near Ascension Island in the southern Atlantic Ocean. Dampier saved his journals and specimens and eventually reached England in August 1701.



Museum sheet - Dampier's specimens from 1699

Given the troubles he encountered, it is amazing that anything Dampier collected has survived to the present day. Yet there are 24 known specimens of Australian plants (including one seaweed) collected by Dampier which are represented in his material at a Herbarium in Oxford University. They have been examined and named by many Australian botanists, by far the most comprehensive descriptions being by WA botanist Alex George in his book *William Dampier in New Holland, Australia's first natural historian.* I have used this to compile the attached table of the first 26 Australian plants collected from Australia. It is quite astonishing that all this happened before 1700 although the correct naming of all the specimens took a further several hundred years. I did promise to refer again to the 1697 specimens because they have an interesting subsequent history. The two were taken to Java where they languished for some 70 years before they were described and included in an impressive book Flora Indica by the Dutch physician and botanist Nicholas Burmann. The trouble is, they were described as ferns from Java! It wasn't until the early 1800s that other botanists with more knowledge of the Australian flora were able to name them. Even then, it wasn't until 1919 that an American botanist, Elmer Merrill, finally placed the Synaphea specimen in spinosa (the other had been named Acacia truncata by Jonas Dryander in the early 1800s). Somehow, the specimens finally finished up in a Herbarium in Geneva, Switzerland although the Acacia has subsequently been lost.

?de Vlamingh, 1697	Dampier, 1699
Acacia truncata	Acacia coriacea
Synaphea spinosa	Acacia ligulata
	Adriana tomentosa
	Beaufortia sprengelioides
	Calandrinia polyandra
	Conostylis stylidioides
	Dampiera incana
	Diplolaena grandiflora
Dampier, 1699	Dampier, 1699
Frankenia pauciflora	Sida calyxhmenia
Hannafordia	Solanum orbiculatum
quadrivalvis	
Lotus cruentus	Thryptomene baeckeacea
Melaleuca	Trachymene elachocarpa
cardiophylla	
Myoporum insulare	Triodia danthanioides
Olearia 'dampieri'	Willdampia formosa
	(Swainsona formosa)
Paractaenum	Brachycome aff cheilocarpa
novaehollandiae	
Pittosporum	Cystoseira trinodis
phylliraeoides	(seaweed)



Synaphea spinosa -

Further reading: The most comprehensive book is George, Alex, *William Dampier in New Holland*, *Australia's first natural historian*, Hawthorn, Vic., Bloomings Books, 1999. Others include: Jill, Duchess of Hamilton & Bruce, Julia, *The Flower Chain, the Early Discovery of Australian plants*, East

Chain, the Early Discovery of Australian plants, East Rowville, NSW, Kangaroo Press, 1998. and Finney, C.M., To sail beyond the sunset, natural history in Australia 1699-1829, Adelaide, Rigby, 1984.

NATIVE PLANTINGS AT COWRA JAPANESE GARDEN By Debbie Gaskill

In a recent visit to Central NSW we had time to stop off for a visit to these well-known gardens. We had been there in the spring years ago but this was our first autumn visit (early May) and it was well worth it. One of the main things I noticed was the number of Australian natives which were planted in among the exotics for varying effects.

The dominant local species of eucalypt seems to be E albens and there were a number of very large preexisting trees integrated into the Japanese plantings. Other eucalyptus species included maculata, erythrocorys and saligna.

The following species were also integrated into the overall plan: Grevillea rosmarinifolia, Westringia fruticosa, Brachychiton populneus, Thryptomene saxicola "FC Payne", Callistemon viminalis "Captain Cook", Dianella laevis and Solya heterophylla. The westringia was particularly effective heavily shaped in among the exotics.

Just a few facts about the gardens: they were first opened in 1979 with a second stage following late in 1986. They cover 5 hectares and are the largest Japanese gardens in the southern hemisphere.

Geoff and I were amongst the youngest of the visitors the morning we were there. Electric scooters can be hired and it was amusing to see one chap using a scooter not only for himself but to exercise his little dog which he had running along beside him. Seniors entry was \$10.00



The image shows one of the large E albens framed by Zelkovia serrata (Japanese Elm) on the right and another tree on the left which was unfortunately wrongly labelled.

OUR NEXT MEETING

19th June

The speaker at our June meeting is Tim Solly, the head gardener at the Barwon water nursery. Tim will talk to us about his work, and Barwon water's program of revegetation.

JULY MEETING and AGM

17th July

The July meeting will be our Annual General Meeting and now wildly anticipated photo competition. All Committee positions are vacant and elections will be held for all positions. Nominations will be accepted from the floor. At least one Committee member will be retiring, so give some thought to your future contribution to the club.

The photo competition will be run along the same lines as previous years. Entries will be accepted in three categories: Australian Plants, Australian Animals, and Australian Landscape. Photos should not bear any mark to identify the photographer. The photos with the most popular votes will be the winners.



Roger Wileman's winning Landscape 2010

AUGUST MEETING

Members' Night

The August 21st meeting will be in the form of a show'n'tell, where any member who wishes can bring along a plant, some photos, tell us about a holiday or a memorable bush-walk, or anything that you think we might like to see/hear/listen to. I'd be happy to help anyone who is interested to get their photosonto a disc for the data projector, or to come and take some garden photos or whatever. Let me know if I can help

SEPTEMBER MEETING - Grassland Plants of Western Victoria

Trevor Proud will talk to us about the Plants of the volcanic plains at our Spetember 18th Meeting. This will be followed by a bus-trip On Saturday 22nd, led by Trevor, to see the plants first-hand.

OCTOBER MEETING Western Australian Plants

Penny and I are having a weeks' holiday at Toodyay, about 80ks inland from Perth, and we are back just in time to show you our happy snaps of the fabulous W.A. wildflowers.

NOVEMBER MEETING.

Eucalypts

Jason Caruso will talk to us about small Eucalypts suitable for suburban gardens at our November 20^{th} meeting.

On Saturday 24th, we will have a bus-trip to visit Graham and Ros Woods grevillea collection in his garden at Gisborne, followed by a visit to Barb and David Pye's nursery