



Dillwynia sericea

NEWSLETTER

AUSTRALIAN PLANTS SOCIETY, MITCHELL GROUP INC.

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Inc# A0054306V

June news...!

Hello and welcome to our June edition!

Now that winter is well and truly here I hope you are all keeping warm and busy. This month's edition is a bit of a bumper issue with a larger than usual meeting report. So now might be the time to take a break, grab a cuppa, find a warm spot and enjoy the read.

The committee is still actively working on this years Plant Expo & Sale and are planning on a Native Plant Hanging Basket as a Raffle/Door Prize. If there are any creative green thumbs in our group who would like to volunteer to create a hanging basket prize the committee would love to hear from you. APS Mitchell would supply the basket, liner and potting mix.

APS Mitchell has now been listed in the Mitchell Shire Council's online Business & Community Group Directory. You will find us in the Arts And Entertainment/Interest Groups category.

Lastly our July newsletter is due out on the 2nd Monday (the 13th). Remember: please keep all



Banksia integrifolia

Photo: J Petts

the great photo's, articles and items of interest rolling in :-). The dead line for contributions is July 6th (1st Monday) and can be sent to me at:

wattlegum@southernphone.com.au or

Mailed to PO Box 381, Pyalong Vic 3521

Cheers till our next edition,

Jeanine

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Must See Art Exhibition

By Victoria Morris

I went to the Ian Potter Centre recently to see the John Wolseley - Heartlands and Headwaters exhibition currently on until August 16th, (Free entry).

I was quite blown away by the beauty of his work, its scale (impressively large in parts) and the whole idea of it.

For anyone interested in fine art, the flora and fauna of the Australian wilderness and wetlands, this is a revelation and worth a look.

John Wolseley
Heartlands and
Headwaters Exhibition
NGV Australia, Level 2
11 Apr 15 – 20 Sep 15
Open 10am–5pm
Closed Monday
(exc. public holidays)
Voluntary Guide tours
Thur & Sat, 1:30 pm

June 2015

Volume 2, Issue 5

Mitchell Diary Dates..

- **JUNE 15th**
7:30pm MEETING
Guest Speaker:
Dr Ian Chivers from
Native Seeds on Native
Lawns & Conservation
(details page 2).
- **JULY 20th**
7:30pm MEETING
Guest Speaker:
Geoffrey Lay- "The
Larapinta Trail". Come
along and hear from
Geoffrey about
walking the trail from
Alice Springs through
the spectacular
MacDonnell ranges
(more details in our
July edition).
- **AUGUST 17th**
7:30pm MEETING
Guest Speaker T.B.A
- **SEPTEMBER 21st**
7:30pm MEETING
Guest Speaker T.B.A.
- **SEPTEMBER 27th**
Proposed Euroa
Arboretum Visit. Car
Pooling may be
available.
- **OCTOBER 17th APS**
MITCHELL ANNUAL
SPRING PLANT EXPO &
SALE
Kilmore Memorial Hall
14 Sydney St, Kilmore
See page 14 for
further information.
- **OCTOBER 19th**
7:30pm MEETING
Guest Speaker:
Bill Aitchison on
Acacias



Standard of the Month...

By Brian Weir

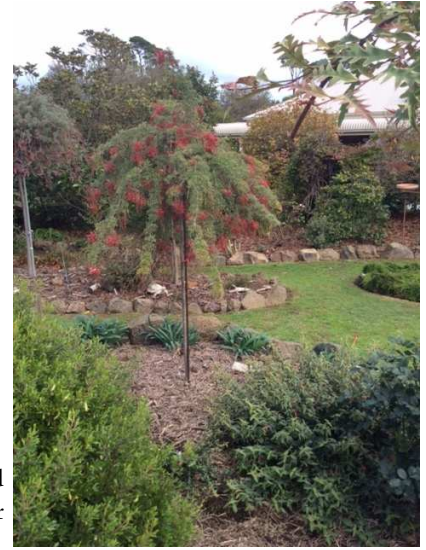
Grevillea 'Katydid'

Grevillea 'Katydid' is a *Grevillea bipinnatifida* X *Grevillea batrachioides* hybrid produced by N Marriott.

It is an extremely vigorous grower, this one was grafted in January 2014 and has quite a long flowering period. Tolerating frosts to at least -4c so far at Wallan, watered occasionally in summer.

A very prickly leafed plant but it is for looking at, not cuddling. It may be too vigorous growing for a long life standard but I bet you will love it for 4-5 years.

Grevillea 'Katydid' Standard
Photo: Brian Weir



MEETINGS ARE HELD ON THE
3rd MONDAY OF THE MONTH
(February to November)

In the John Taylor room at
Kilmore Library

12 Sydney Street, Kilmore

Entry \$2.00 Gold Coin

Guest Speaker

Door Prizes

Plant Sales

Fertilizer Sales

(APS Mitchell Slow Release
fertiliser \$5.00 per 500g)

Use of the APS Mitchell free
Library (See Barbara)

Supper & Chat

VISITORS VERY WELCOME

Members & Visitors are
encouraged to bring along
exhibits for our Flower
Specimen Table

Please label plants



June Meeting Monday the 15th 7:30pm...

By Jeanine Petts

This month we are very fortunate to have Dr Ian Chivers joining us to speak on Native Lawns & Conservation. Dr Chivers is the founder of Native Seeds Pty Ltd and an expert on indigenous Australian grass. He has been involved in research, management and selection of native grasses for pasture, revegetation and amenity applications.

Over the years, he has collaborated with many government organisations and institutions, including: Rural Industries Research and Development Corporation, Australian Research Council, the University of Melbourne, the University of Western Australia, Curtin University, Royal Botanic Gardens Cranbourne, and Queensland Alliance for Agriculture and Food Innovation.

Dr Chivers has a love for native Australian grasses and passion for the environment which is sure to make for a very informative and interesting evening.

<https://www.nativeseeds.com.au/>



Microlaena stipoides var. *Griffin*

<https://www.nativeseeds.com.au/wp-content/uploads/2014/01/weeping-grass-lawn-full-height-1024x768.jpg>

Memberships...

Just a reminder that 2015-16 membership renewal fees will be due next month and a renewal form will be included with our July Newsletter.

For membership/renewal enquiries or forms please contact Bill Barker- Phone: 5783 3838. Alternatively visit APS Mitchell's website:

http://www.apsmitchell.org.au/?page_id=18

May Meeting Report “Australian Native Essential Oils”

By Jeanine Petts with detailed information from Neil Humphreys

Members who came along to our May meeting spent a fascinating and stimulating evening hearing about the Essential Oil Industry, our Australian Native Essential Oils including a number of plant and oil profiles and the Aroma Chemicals within essential oils which was then topped off with a veritable smell-a-thon from an array of samples which Neil brought along. Neil very generously provided a copy of his presentation so a fairly comprehensive report follows...

Our sense of smell is an important sense yet we tend to overlook it in a gardening sense and hardly use it. So, what is an Essential Oil? Essential oils are also referred to as “volatile” or “ethereal” oils and are a volatile mixture of organic compounds derived from odorous plant material. An oil is “essential” in the sense that it contains the “essence” of the plant’s fragrance - the characteristic fragrance of the plant from which it is derived. Most essential oils exist in the source material with a few exceptions such as mustard and onion oils which are formed only as a result of enzymatic action after the plant material has been crushed or macerated with water.

Some of the botanical sources essential oils come from are:

Flowers: Carnation, Jasmine, Rose, Violet, Lavender etc.

Herbs: Spearmint, Peppermint, Basil, Dill, Rosemary etc.

Leaves: Eucalyptus, Wintergreen, Tea Tree, Kunzea, Bay etc.

Woods: Cedar, Birch, Rosewood, Santal, Laurel etc.

Needles & Twigs: Pine, Cassia, Cedar, Cypress etc.

Barks: Birch, Cassia, Cinnamon etc.

Fresh Fruits (cold expressed): Citrus fruits.

Grasses: Citronella, Lemongrass, Ginger grass etc.

Seeds: Cardamom etc.

Dried Fruits: Anise, Celery, Carrot, Fennel, Nutmeg etc.

Dried Buds: Clove.

Dried Berries: Pepper, Juniper, Pimento.

Roots & Rhizomes: Angelica, Ginger, Valerian, Turmeric.

Balsams: Peru, Tolu, Labdanum.

Gums: Mastic, Myrrh, Opopanax, Galbanum.

Globally many essential oils are produced on a large scale, figures from the 1990’s show the following amounts (in tonnes per annum):

Orange	12,000
Cedarwood	8,000
Peppermint	2,600
Lemon	2,300
Eucalyptus	2,070
Litsea cubeba	2,000
Clove Leaf	2,000
Spearmint	1,300

Orange oil is by far the biggest in production globally and is a by product of the juice market from South America. Peppermint oil is produced in both Brazil and China while Clove is used for culinary purposes and also in the Indonesian Kretec cigarettes- Kretec meaning “crackle” with the small explosion characteristic of the cigarette coming from the clove bud.

The botanical function of Essential Oils still has no real scientific agreement and debate continues on how and why essential oils are produced by plants. Their function within a plant is also the subject of some discussion and theories include:

Attraction of “pollinators”

Repulsion of predators and parasites

Reserve food sources

Means of sealing wounds



Photo: Jeanine Petts

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(Continued from page 3)

- Reduction of cell fluid (water) evaporation
- Temperature control through evaporation of the oil
- Provision of precursors for chemical reactions within the plant

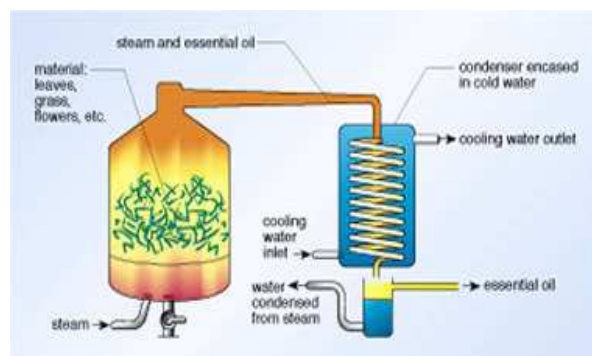


Image: <http://www.stoneoils.com/the-methods-of-extracting-essential-oils/>

Methods of Extracting Essential Oils:

Steam Distillation: Extracting essential oils dates back thousands of years. The early Egyptians used and distilled Essential Oils, this was usually achieved via a simple process of steam distillation from chipped and macerated plant material. Today this is now a much modernised and mechanised process.

Enfleurage: This process is used in the perfume industry and has the benefit of protecting the finer aromatic qualities. Flowers are layered on fat, stored for a day or longer and then repeatedly replaced by new flowers until the transferred fragrance oil is finally extracted to create pomade. Jasmine is one of the oils produced in this manner and can cost \$15,000 per kilogram.

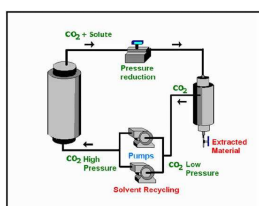


Images: <http://boisdejasmin.com/images/old/6a00d8341c706153ef0147e3fba505970b-pi.jpg>

http://2.bp.blogspot.com/-L_YBkmngre/T1CDr1aYXoI/AAAAAAAAGIE/oMyTSag-jo/s1600/24753_14.jpg

<http://eng.egge.edu.tr/~otles/SupercriticalFluidsScienceAndTechnology/bolumb/Wc34c920327cd9.htm>

Cold Pressing: This method is used to prevent and protect the fragrance from heat damage and most often associated with extracting citrus oils. Tiny needles are used to prick over the skin surface which is then squeezed to produce the oil.



Super Critical Extraction: This modern extraction method utilises Co2 as a solvent under pressure to produce the oil.

Image: <http://www.stoneoils.com/the-methods-of-extracting-essential-oils/>

Essential Oils in Australia

Prior to European settlement the indigenous Australians were well aware of the curative properties of certain native flora and the peoples did sometimes do a rough form of extraction. Most of the time, it was the essential oils in those plants which they were benefiting from. Australian plants were used for colds, cuts, sores, sore or swollen muscles, skin complaints and repelling insects. There were also plants with pleasant aromas which were burnt for a variety of effects. Australian Sandalwood (*Santalum spicatum*) timber and leaves were burnt to relax new mothers. Sometimes plant material was burnt for the smoke to be used in ritual activities.

Colonial use of Essential oils had begun by November 1788 when around 10 months after the first fleet landed about 1 litre of the first Eucalyptus oil was steam distilled (from the Sydney Peppermint Gum, *E. piperita*). On the continued insistence of Baron Ferdinand Von Mueller, the English pharmacist Joseph Bosisto started commercial distillation of Eucalyptus oil at Dandenong, near Melbourne in 1852. From here Australian Eucalyptus grew to be known around the world. However Australia has over 700 species of Eucalyptus oil, with a wide variety of aromatic profiles. In fact Ferdinand von Mueller and other botanists in the late 1800's and early 1900's pushed many Australian species into the world of research to establish potential uses.

By the early mid to 19th century Tea Tree Oil from wild harvested sources was included in World War I medicine kits being used by Australian soldiers as an antiseptic and was still in use during World War II. Australian Sandalwood (*Santalum spicatum*) was also wild harvested and distilled for perfumery, as was Western Australia's Boronia (*Boronia megastigma*). Australian Sandalwood was used as a bactericide in Australia and Western Europe until it was eventually replaced by antibiotics. Peppermint Gum (*Eucalyptus dives*) oil was used for the production of menthol and used in cough drops and syrups until the synthetic menthol industry developed. During World War II Lemon Myrtle was harvested and distilled from wild trees near Gympie in south east Queensland for the supply of lemon essence for the soft drink manufacturer Tarax. However not enough trees were in the wild to make it viable and manufacture was discontinued.

From the mid 19th century there was a decline in Essential oil usage. Wild harvesting for many species became uneconomic, also the development of artificial substitutes led to a decline in the use of many essential oils, native and non native, throughout the industrial world. In the later half of the 19th century the trend of Aromatherapy and the market for Australian Native foods began to develop. The early 1970's saw the first plantations of Tea Tree (*Melaleuca alternifolia*) in far north New South Wales. Tea Tree essential oil by volume is now the largest Australian native essential oil produced in Australia. In 1989 the first Lemon Myrtle (*Backhousia citriodora*) trees were planted out initially for

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By Jeanine Petts with detailed information from Neil Humphreys

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food/herb consumption, similarly Anise Myrtle in smaller volumes was planted out soon after. A small number of Australian native plants have remained economic to harvest sustainably from the wild.

For the Future there remains a great many native plants yet to be harvested even though their potential has been identified. There are also plenty still to be ‘rediscovered’. A return to ‘all things natural’ is seeing the increased use in Australian essential oils for a variety of uses. Medical research is also now currently being done in the area of Aromatherapy and work is underway to validate the various claims and uses.

The audience “smell-a-thon” part of the evening began with the oil samples being passed around, along with Neil explaining the following plant and oil profiles, also Aroma Chemicals:

Corymbia citriodora

Common Name/s: Lemon Scented Gum, Blue Spotted Gum.

Natural Occurrence: Maryborough to Mackay in mid Queensland and around Atherton in North Queensland. Grows to a maximum height of 40 metres in the wild, like most Eucalyptus it can grow on low nutrient soils. The fallen leaves have a distinct and very strong lemon odour when crushed.

Farming: Grown in plantations. A mechanical harvester is used and the trees re-shoot each year.

Oil Extraction: Steam distillation of leaves and green branchlets.

Oil Characteristics: Golden yellow colour, sometimes with a pink tinge, clear, watery, strong citrus lemony aroma.

Usage & Therapeutic Claims:

Traditional Usage: The bark produced gum exudates (Kino), it was believed to be antibiotic and was used as an astringent for treating diarrhoea.

Early European Usage: Early settlers used the gum exudates for treating diarrhoea, the leaves also in sachets to keep silverfish and cockroaches out of clothing storage and hard durable timber and was used for bridge construction, tool handles, framing, flooring and case manufacture.

Present Day Usage: Eucalyptus Lemon Scented Gum essential oil is being used in aromatherapy and as a raw material in the perfume industry as a source of citronellal.

The flowers produce a very pleasant variety of honey for beekeepers.

It is an excellent insect repellent and the essential oil has proven bacteriostatic activity towards *Staph. aureus* (Golden Staph).

Eucalyptus staigeriana

Common Name/s: Lemon Scented Ironbark, Cape York Ironbark.

Natural Occurrence: Lemon Ironbark Eucalyptus trees naturally occur in the east coast region of the Cape York Peninsula. An area near the Palmer River on Cape York Peninsula is a stronghold of the tree. It grows to a maximum of about 20 metres.

Farming: Sourced from plantations. New growth is harvested for oil production.

Oil Extraction: Steam distillation of the leaves and green branchlets.

Oil Characteristics: Very pale yellow to clear, watery, fresh pleasant lemon scented oil, slightly similar to Lemon oil with a woody scent.

Usage & Therapeutic Claims:

Traditional Usage: Little is known of its indigenous use at present. The leaves may have been used to enhance food and the timber used for tools.

Early European Usage: Again there is little evidence of use by early European settlers.

Present Day Usage: In the last decade, Eucalyptus Lemon Ironbark essential oil has started to be used in the Australian native food industry, as a herb flavouring.

Known for its antiseptic prowess, relief from troubled breathing in winter, air freshening, uplifting, relaxing, removes bad room smells and odours, calms noisy children.

Used in massage for relief from tired muscular aches, air freshener, massage oil, kitchen and bathroom cleaning, dishwashing liquid. Other



Corymbia citriodora <https://www.flickr.com/photos/57768042@N00/4677876896>



Eucalyptus staigeriana
Image: Euclid: Eucalypts of Australia (CSIRO)

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uses are in a bath, footbath, sauna, vacuum cloth bag, floor washing water, add to clothes washing, bathroom cleaning.

Eucalyptus globulus

Common Name/s: Tasmanian blue gum, southern blue gum or blue gum.

Natural Occurrence: In its optimal situation this Eucalypt can reach up to 70 metres in height. Found in Tasmania and southern Victoria particularly the Otway Ranges & southern Gippsland. Also, isolated occurrences are found on King Is., Flinders Is. and on the summit of the You Yangs. There are naturalised non-native occurrences in Spain, Portugal and other parts of southern Europe, South Africa, New Zealand, Western USA, Hawaii and Micronesia.

Farming: The essential oil is sourced entirely from plantations.

Oil Extraction: The leaves are harvested mechanically and steam distilled.

Oil Characteristics: Clear or colourless, watery, typical Eucalyptus menthol aroma.

Usage & Therapeutic Claims

Traditional Usage: Believed to be used by the indigenous Tasmanian People in the same way as most of the recognised Eucalypts, for cuts, colds and infections. The leaves were also burnt to repel insects.

Early European Usage: Early settlers took advantage of the tree leaves for colds and coughs as well the leaves were burnt in fires to repel insects. Blue Gum timber was used for poles and railway sleepers. In the 1860's the Melbourne Archbishop took Blue Gum seed to Rome, where the fast growing trees were grown to drain swampy regions, as a result serious malaria problems were removed.

Present Day Usage: Blue Gum became the floral emblem of Tasmania in 1962. In the 1990's financial markets in Australia became attracted to management investment schemes for Blue Gum. Millions of dollars were invested and tens of millions of trees were planted for the purpose of a renewable paper pulp supply. The schemes failed as timber from old growth forests was cheaper. The plantations can be seen in Victoria, extensively in South West Western Australia, Tasmania and on Kangaroo Island in South Australia.

Used as an air freshener, in massage and bath oils, in laundry & household cleaners, great in removing sticker and bandage residues. Also to remove stains, removes biro/texta and grease marks from clothing, assists in removing chewing gum. Eucalyptus globulus is the primary source of Eucalyptus oil around the world.

***Eucalyptus radiata* (Syn. *Euc. Australiana*)**

Common Name/s: Narrow Leaf Peppermint, Aust. Eucalyptus.

Natural Occurrence: Naturally occurs in the Eucalypt forests of South Eastern NSW and North East Victoria, including the Snowy Mountains and is relatively common in these areas. Grows at altitudes from around 250 metres to 1200 metres. Eucalyptus radiata grows in an especially large area around the Tumut and Batlow region, an area on the very footsteps of the Australian Alps where frosts & snow are common.

Farming: Plantations and wild harvesting in Southern NSW. The tree responds well to pruning and harvesting.

Oil Extraction: The tree leaves and green branchlets are hand harvested and steam distilled immediately.

Oil Characteristics: Clear or colourless to amber colour, watery, sharp, fresh scent, sweet fruity undertone.

Usage & Therapeutic Claims:

Traditional Usage: Indigenous Australians inhaled oil infused steam vapours to relieve colds & coughs.

Early European Usage: The first commercial Eucalyptus oil production began at Dandenong Creek, it was established by Joseph Bosisto in 1852 on the insistence of one of Australia's greatest botanists, Ferdinand von Mueller. That first commercial species was Eucalyptus radiata, Australia is still a major source of this wonderful, fresh, Eucalyptus oil.

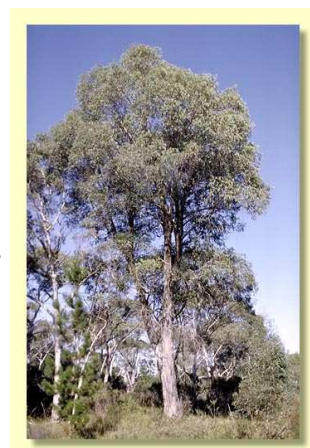
Present Day Usage: This oil seems to have not been as well popularised or marketed as other types of Eucalyptus oils, yet it may well be the best Eucalyptus, owing to its fresh, fruity aroma, yet still qualifying as an effective, legitimate Eucalyptus oil.

Relief for tired muscles, renown for its antibacterial qualities. Excellent air freshener, uplifting, relaxing, removes bad room smells and odours,



Eucalyptus globulus Photo: Bruce Champion

<http://anpsa.org.au/e-glo.html>



Eucalyptus radiata

Image: Euclid: Eucalypts of Australia (CSIRO)

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calms noisy children.

Kunzea ambigua

Common Name/s: Tick Bush, Ducane Kunzea, White Cloud, White Kunzea.

Natural Occurrence: Kunzea ambigua occurs naturally in the woodland of eastern Tasmania, southern Victoria and south east N.S.W. The plant grows to around 5 metres, they can grow in clusters. Reasonable but not high and regular rainfall is preferred.

Farming: Harvesting of Kunzea for essential oil has been carried out for 20 years .

A superior variety is farmed in north east Tasmania by wild harvesting. Needs regular pruning as it can become quite gangly.

Oil Extraction: Kunzea essential oil is extracted via steam distillation of the leaves and green branchlets.

Oil Characteristics: Clear to very pale yellow, watery, fresh, mild spicy pleasant aroma.

Known as “ smell of the Australian bush”.

Usage & Therapeutic Claims

Traditional Usage: There are no stories of indigenous people use at present but it is almost certain the indigenous people would have used the plant.

Early European Usage: The early settlers noticed native animals slept under Kunzea shrubs.

It was later established that the native animals slept under the bush to rid themselves of ticks, as a result the bush was called ‘Tick Bush’.

Present Day Usage: Like many native Australian plants with an abundance of essential oil, the plant repels most insects and native animals. It is used for treating anxiety, stress, aiding relaxation, insect stings and bites. Kunzea essential oil has been listed with TGA for relief from, arthritis, rheumatism, muscular aches and pains, insect bites and insect bite inflammation & symptoms of influenza.

Melaleuca alternifolia

Common Name/s: Paperbark, Ti Tree, Melaleuca, Melaleuca oil tree.

Natural Occurrence: Reasonably common, sometimes growing in pure stands in the wild.

Tea Trees naturally occur in the lowlands and swamps of northern NSW and South East Queensland.

Farming: Grown in plantations in northern N.S.W. and south east Queensland.

Trees are planted in rows & kept to a maximum height of 4 metres to enable machine harvesting.

Oil Extraction: Extracted via steam distillation of the leaves and green branchlets.

Oil Characteristics: Clear to pale amber yellow colour, watery, crisp, medicinal scent.

Usage & Therapeutic Claims:

Traditional Usage: Indigenous people would put rocks in their fires until the rocks were extremely hot, these rocks were then place into small pools of water. Tea Tree leaves and branchlets were placed into the steaming water and the oil vapour was inhaled for respiratory conditions. Another use involved using mud to stick leaves and small branchlets onto infected areas.

Early European Usage: There were several small distillations of wild populations, particularly around the northern New South Wales region in the early 1900's. When raw materials (antiseptics) were in short supply in World War I and II, soldiers would carry the oil with them, as a first aid kit. After World War II with the development of antibiotics, Tea Tree production declined.

Present Day Usage: In the 1970's Tea Tree oil was restarted by the Dean family, just south of Byron Bay. Tea Tree oil is now known around most of the world. In the 1980's and 1990's many Tea Tree oil farms were established around the northern New South Wales region. However the price crashed as plantations were established in India and many other countries where labour is much cheaper.



Kunzea ambigua Photo: Kevin Sparrow
www.natureshare.org.au



Melaleuca alternifolia
http://pics.davesgarden.com/pics/2009/06/27/art_n_garden/fd4933.jpg

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Melaleuca ericifolia

Common Name/s: Rosalina, Swamp Paperbark, Lavender Tea Tree.

Natural Occurrence: Naturally occur in the swampy lowlands of Tasmania, Bass Strait Islands, Victoria and NSW. Grows to a maximum height of 8 metres in the wild.

Farming: Rosalina is grown in plantations, wild harvesting also occurs.

Oil Extraction: The Essential oil is extracted via steam distillation of the leaves and green branchlets.

Oil Characteristics: Clear to amber yellow colour, watery, lavender, fresh. An earthy, gentle lavender aroma and very mild Tea Tree aroma.

Usage & Therapeutic Claims:

Traditional Usage: At present we do not have any records of traditional use but it is quite reasonable to expect that the oil was used.

Early European Usage: The tree was occasionally wild harvested for its medicinal essential oil. The trees also flower prolifically and so bee hives are located near the trees for honey production.

Present Day Usage: The oil is relaxing, refreshing, calming, good for cleaning surfaces, keeping rooms hygienic, use as an alternative to Eucalyptus or Tea Tree. Those who don't like Lavender, like this Lavender aroma.

Syzygium anisatum (Previously Backhousia anisata)

Common Name/s: Ringwood, Aniseed Tree, Anise Myrtle.

Natural Occurrence: A rainforest tree to 40 metres, very rare in the wild, limited to Bellinger and Nambucca Valleys of New South Wales.

Farming: Anise Myrtle is grown in plantations around northern NSW. Originally grown for the herb or bush tucker markets until the 'rediscovery' of it's unique essential oil.

Oil Extraction: The trees are harvested and are then steam distilled for around 1hr.

Oil Characteristics: Liquorice, aniseed, fresher and more pleasant than traditional anise and aniseed.

Usage & Therapeutic Claims:

Traditional Usage: Little knowledge of traditional use is available.

Early European Usage: The trees were harvested during World War II, when aniseed flavouring was in short supply, then ceased again after World War II.

Present Day Usage: The RIRDC (Rural Industries Research & Development Corporation) has shown that the leaf/herb has up to 5 times more antioxidants than Blueberries and it is several times higher in Lutein, Mg, Ca, Mn and Vitamin E than Blueberries.

Used in an oil burner, vaporiser, potpourri, massage oil, bath for relaxation.

Add a few drops to a food mix for a wonderful Anise flavour or mask a bad flavour. Use in washing products to eradicate or mask bad smells.

Use in cleaning animals and animal kennels. Anise Myrtle oil attracts fish to fish lures.

Agonis fragrans

Common Name/s: Coarse Tea Tree, Fragonia

Natural Occurrence: Limited distribution in south west Western Australia.

Farming: Grown in plantations around south west Western Australia.

Oil Extraction: The harvesting is done mechanically, the branchlets and leaves are collected and then placed into a stainless steel boiler and steam distilled for around 1 to 1.5 hours.

Oil Characteristics: Fresh, delicate, watery, clear liquid.

Usage & Therapeutic Claims:

Traditional Usage: No knowledge of traditional use is available.



Melaleuca ericifolia
Photo: Chris Clarke
www.natureshare.org.au



Syzygium anisatum
<http://www.planthis.com.au/plant-information.asp?gardener=8892>



Agonis fragrans
http://skintown.ucoz.ru/_fr/0/0511882.jpg

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Early European Usage: There is no recorded use of the Fragonia plant by early settlers.

Present Day Usage: Fragonia essential oil is a new oil to the aromatherapy industry with many unique properties. University of Western Australia demonstrated Fragonia essential oil to have significant anti-microbial activity, similar to Tea Tree and also demonstrated Fragonia essential oil has anti-inflammatory properties. Also claimed to fight common respiratory infections, strengthens the immune system and has excellent analgesic properties. The flower is also cut and used in the florist industry.

Backhousia citriodora

Common Name/s: Lemon Ironwood, Lemon Scented Myrtle.

Natural Occurrence: Lemon Myrtle trees naturally occur in the rainforests of Queensland from Brisbane to the Atherton Tablelands. The tree is not common, Lemon Myrtle grows to a maximum height of 30 metres in the wild. High and regular rainfall, soils with good drainage is preferred.

Farming: Grown in plantations in northern NSW and Queensland. Planted in rows and kept to a maximum height of 4 metres to facilitate machine harvesting.

Oil Extraction: Steam distillation of the leaves and green branchlets.

Oil Characteristics: Clear to amber yellow colour, watery, scent citrus/lemony.

Usage & Therapeutic Claims:

Traditional Usage: No knowledge of traditional use is available.

Early European Usage: First recognised by settlers in 1856 around the Moreton Bay area of south east Qld. By 1888 the first Lemon Myrtle essential oil distillation is thought to have occurred. There were several small distillations of the oil from small wild populations of Lemon Myrtle trees, particularly around the Gympie area through to World War I. When raw materials (lemon essences) were in short supply in World War 2, the tree was wild harvested again. Distillation again ceased after World War II.

Present Day Usage: Citral has been shown to be anti-microbial, particularly anti fungal, anti-viral, sedative. Use Lemon Myrtle essential oil for food or drink flavouring by adding 2 to 4 drops per 1000ml of liquid. Also mix Lemon Myrtle essential oil in cooking oils eg. Olive or Macadamia oil, at a rate of 4-6 drops per 1000ml of cooking oil. Leaves can be added into soup etc.

Callitris glaucophylla

Common Name/s: Northern Cypress Pine, White Cypress Pine, Murray Pine Cypress, Jade Cypress.

Natural Occurrence: Abundant across mainland Australia, south of the Tropic of Capricorn. Grows in various substrates. Found in deep sand in higher rainfall areas where rapid regeneration after fires is possible; in rocky fire refugia in drier areas where regeneration is slow and uncertain.

Farming: Sourced from government managed wild stands in Australia.

Oil Extraction: The trees are harvested and the stems & branches steam distilled for around 48 hours. The harvesting of quite big trees requires heavy machinery and a long distillation process which both add to the cost of the oil.

Oil Characteristics: Honey yellow in colour, viscous (honey like), smooth, sweet woody aroma.

Usage & Therapeutic Claims:

Traditional Usage: Australia's indigenous people have traditionally used the timber to make spears, spear throwers, ceremonial objects, paddles and musical sticks. They also used pine resin and kangaroo dung to make an adhesive substance.

Early European Usage: Has been harvested for timber since the late 1800's, the first reserve was set aside in NSW in 1876. The timber is durable and is termite resistant, was used for house construction, flooring, fencing and some fine furniture work.

Present Day Usage:

The essential oil is used for meditation, relaxation, however it appears to have good medicinal potential and can also be used as a base or fixative for perfumery. Today the largest reserve of White Cypress is in the Piliga region, in north central NSW, this reserve area totals 420,000 hectares of which around 65% is Callitris forest cover. This resource appears to be sustainably managed for its timber production, the



Backhousia citriodora

Photo: Brian Walters

<http://anpsa.org.au/jpg/930202a.jpg>



Callitris glaucophylla

Photo: Chris Lindorff

www.natureshare.org.au

(Continued on page 10)

May Meeting Report “Australian Native Essential Oils”

(Continued from page 9)

amount taken out for essential oil is negligible.

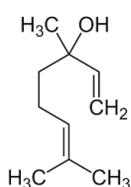
Some interesting anecdotes mentioned during the sampling were that:

- Strongly scented plants often have white flowers.
- All Eucalypt oils contain the same common Aroma Chemical components which give them their known characteristics.
- Orange oil can also be used to remove chewing gum in fact some countries governments have been known to purchase drums of Orange oil for the purpose in the past.
- Remember there is always a possibility for some people to become sensitised to certain essential oils so do be careful when using them.

A further step following on from essential oils are the aroma chemicals extracted from the oils. For example: All Eucalypt oils have similar constituents related to their bacteriocide effects, the active ingredient in Melaleuca and Fragonia is Linalool, D-Limonene is the distinctive sweet orange component used as an industrial solvent which also has many different uses and Citronellal is the strong antifungal. There actually can be 20-30 or more chemicals in an essential oil. Even similar chemicals often end up with very different odours. When chemists synthesise and manipulate Aroma Chemicals new odours can be made by making very small changes.

Aroma Chemicals found in particular Australian Native oils are:

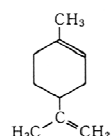
- *Corymbia citriodora* (Lemon Scented Gum): citronellal, citronellol, limonene, pinene, iso-pulegol and traces of 1,8 cineole.
- *Eucalyptus staigeriana* (Lemon Scented Ironbark): limonene, geranial, neral, terpinolene, para-cymene, 1,8 cineole and pinene.
- *Eucalyptus globulus* (Blue Gum): 1,8 cineole, alpha-pinene, limonene, globulol, aromadendrene, alpha-terpineol.
- *Eucalyptus radiata* (Narrow Leafed Peppermint Gum): Contains up to 75% cineole, also limonene, alpha-pinene, alpha-terpineol.
- *Kunzea ambigua* (Tick Bush, White Kunzea): alpha-pinene, 1,8 cineole, globulol, viridifloral, bicyclogermacrene (which can address infection and tired muscles and joints).
- *Melaleuca alternifolia* (Paper Bark): Terpinene-4-ol, alpha-terpineol, gamma-terpinene and para-cymene.
- *Melaleuca ericifolia* (Lavender Tea Tree): linalool, 1,8 cineole, alpha-pinene, aromadendrene, alpha-terpineol and terpinene-4-ol.
- *Syzygium anisatum* (Anise Myrtle): trans-anethole, equal or greater than traditional Aniseed or Star Anise.
- *Agonis fragrans* (Fragonia): 1,8 cineole, hydrocarbons (pinenes) and monoterpenols (linalool, geraniol, terpinene-4-ol, terpineol).
- *Backhousia citriodora* (Lemon Scented Myrtle): Contains up to 98% citral, containing: geranial, neral, cis citral, (In comparison Lemongrass 30-70% Citrals, Lemon Verbena 40%, Lemon Balm 70%)
- *Callitris glaucophylla* (White Cypress Pine): guaiol: Known anti-inflammatory eudesmols: Known anti-bacterial sesquiterpenes: Known anti-inflammatories.



Linalool- Aroma Description: Sweet lavender with a touch of citrus.

Presence in Essential Oil: *Melaleuca ericifolia*, *Agonis fragrans*.

Uses: Linalool is used as a scent in 60–80% of perfumed hygiene products and cleaning agents including soaps, detergents, shampoos, and lotions. It is also used as a chemical intermediate. One common downstream product of linalool is vitamin E. In addition, linalool is used by pest professionals as a flea, fruit fly and cockroach insecticide.



d-Limonene- Aroma Description: Distinctive sweet orange aroma.

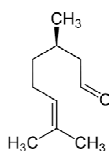
Presence in Essential Oil: *C. citriodora*, *E. staigeriana*, *E. globulus*, *E. radiata*.

Uses: As a botanical insecticide. As the main odour constituent of Citrus, d-limonene is used in food manufacturing and some medicines to mask the bitter taste of alkaloids, and as an ingredient in perfumery, aftershave lotions, bath products and other such products that include fragrance. It is added to cleaning products such as hand cleansers to give a lemon-orange fragrance and because of its ability to dissolve oils. In natural and alternative medicine, d-limonene is marketed to relieve gastric reflux & heartburn. Limonene is increasingly being used as an industrial solvent.

(Continued on page 11)

May Meeting Report "Australian Native Essential Oils"

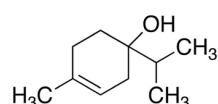
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Citronellal- Aroma Description: Sweet, floral rosy waxy and citrus green.

Presence in Essential Oil: *Corymbia citriodora*.

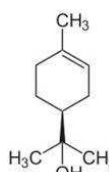
Uses: Citronellal has insect repellent properties (and research shows high repellent effectiveness against mosquitoes), Strong antifungal qualities and is also used for fragrances and flavours.



Terpinen – 4 -ol- Aroma Description: Pepper woody earth musty sweet.

Presence in Essential Oil: It is considered the primary active ingredient of *Melaleuca* oils. It is also the compound of highest concentration in the essential oil of nutmeg.

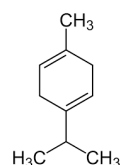
Uses: Used in flavour and fragrance for citrus and spice types. Used in reconstitutions of essential oils such as lavender and geranium. An Anti-inflammatory. Extremely effective treatment for skin infections.



Alpha Terpineol- Aroma Description: Pine terpene lilac citrus woody floral.

Presence in Essential Oil: *E. globulus*, *E. Radiata*, *Melaleuca alternifolia*, *Melaleuca ericifolia*.

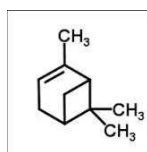
Uses: Used in perfumes, soaps and disinfectants, as a flavouring ingredient and an anti-oxidant. Alpha-Terpineol is one of the two most abundant aroma constituents of Lapsang souchong tea. The alpha-terpineol originates in the pine smoke used to dry the tea leaves.



Gamma Terpinene- Aroma Description: Oily woody terpene lemon/lime tropical herbal.

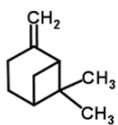
Presence in Essential Oil: *Melaleuca alternifolia*.

Uses: Antioxidant, Widely used in food, flavours, soaps, cosmetics, tobacco, pharmaceutical, confectionery and perfume industries.



Pinene

Aroma Description: α -Pinene: Fresh camphor sweet pine earthy woody. β -Pinene: Dry woody resinous pine hay green.



Presence in Essential Oil: *C. citriodora*, *E. staigeriana*, *E. globulus*, *E. Radiata*, *Melaleuca ericifolia*.

α -Pinene

β -Pinene

Uses: α -Pinene is an anti-inflammatory and seems to be a broad spectrum antibiotic. Selective oxidation of pinene with some catalysts gives many compounds for perfumery.

The sense of smell is our most accurate sense, we have "a memory bank of odours". The average person recognises 25 odours but a trained individual can recognise in the vicinity of 2,500 odours. Back in our evolution we could smell danger, what was good and what was bad to eat. Skunk odour is based on sulphur which equals decay & bad food and so remains in our genetic memory.

A final quotation and acknowledgements rounded out the evening...

"Of all the ingredients we employ in the creation of a garden, scent is probably the most potent and the least understood.

Its effects can be either direct and immediate, drowning our senses in a surge of sugary vapor, or they can be subtle and delayed, slowly wafting into our consciousness, stirring our emotions and coloring our thoughts. "

- Stephen Lacey, *Scent in Your Garden*, 1991

In closing Neil encouraged us all to use our sense of smell, crush a few leaves, snap few twigs. It's surprising what you can smell.

Essential oil samples, their descriptions and technical information were kindly supplied by Mr. Greg Trevena, Owner and Manager of "Essentially Australia".

Essentially Australia

1/7 Sunrise Boulevard, Byron Bay NSW 2481

Email info@essentiallyaustralia.com.au

Phone +61 (02) 66 855 946 (Ask for Greg) Fax +61 (02) 66 855 996

www.essentiallyaustralia.com.au

Neil has some copies of the booklet: *A Guide to Australian Native Essential Oils* by Greg Trevena which includes detailed information on 30 different Australian Native Essential Oils and their use if anyone is interested.

Garden Guide- What's to do in June...

By Barbara Mau



Calocephalus citreus - Lemon Beauty Heads
Photo: Barbara Mau

Some wonderful soaking rain at last! With the onset of winter the first colder days and recent frosty mornings have arrived.

The steady rain and low temperatures have made the indoors so seductive. With the fire going, a 'cuppa' and some good gardening books I have turned my attention to planning and dreaming about rearranging some garden beds for a more pleasing aesthetic, or whether to transplant some species that are unhappy in their current position. Then there are those species that need thinning out as they are smothering those who are smaller and shyer.

Calocephalus citreus - Lemon Beauty Heads, is one such plant that suits group planting but needs space when arranged this way. As this plant matures over summer, to flowers in autumn, it has a tendency to spiral out from the centre, lowering its heavily laden skirt of abundant lemon flowers to the ground, and can overwhelm its smaller neighbours. *C. citreus* have a spread of 30cm to 1mt so planting at meter centres is a good idea.

Winter is a time when many native trees and shrubs put on their flower display.

Acacias are of course the ones that herald winter for most of us. And on the subject on planting in multiples *Acacia acinacea* - Gold Dust Wattle, is a showstopper when planted in drifts. This small ornamental shrub has a lovely arching habit and is adorned with a profuse display of golden yellow balls from August to November. *A. acinacea* loves well-

drained soil in full sun or part shade. It is happy under dappled light or *Eucalyptus*, and grows to 1.5mt high with a width of 2mt.

I have heard some say that they are reluctant to grow *Indigofera australis* – Austral Indigo due to its somewhat leggy/thin/straggly habit. Well I do love this open ornamental shrub with its delicate blue green foliage, graceful, fine arching branches and mauve-pink, pea flowers, appearing in August through to December. The trick, I have found, is, if you like something fuller, lushier, bushier, is to group three or five plants together, say half a meter apart. The resulting effect is most pleasing, flowers aside, with a denser fern like canopy of delicate pinnate leaves, born on elegant, dark, fine filigree of branches.

I. australis is fast growing and can achieve its full height of 1.5mt and 1.5mt wide in the first year. It has a preference for dryer, well-drained sites. It makes a good understorey plant for *Eucalyptus*, but is also most happy growing in an open, sheltered garden situation.

Grevillea alpina - Cats claws, is just about to start flowering in my garden and will continue to do so into early summer. The grey blue hairy leaves set off its lovely abundant rich yellow and orange flowers. It grows to 1.5 - 2mt and width of 1.5mt with an open habit. *G. alpina* enjoys full sun or dappled shade. It is most versatile and will do well as a woodland/understorey plant or as a single garden specimen.

Another favourite is *Viminaria juncea* - Golden Spray or Native Broom. I am planning to have a small grove of these trees down by my small dam where they will receive adequate moisture. This fast growing tree, 3-4mt tall and 2-3mt wide has very fine bright green leaves and a beautiful weeping habit. The slender, broom-like arching branches are adorned with a profusion of golden pea flowers from October through to January.

V. juncea lends itself to a moister, sheltered situated and tolerates inundation. This tree makes a lovely single tree for your garden or grown in groups of uneven numbers.

Enjoy this winter, I wish you all a happy planning and dreaming, until next time!

Viminaria juncea - Golden Spray/Native Broom Photo: Maree Goods
www.natureshare.org.au



Acacia acinacea - Gold Dust Wattle
Photo: David Francis
www.natureshare.org.au



Indigofera australis - Austral Indigo
Photo: Barbara Mau



Grevillea alpina - Cats Claws
Photo: David Francis
www.natureshare.org.au



Reminders, APS Victoria Diary Dates & Other Events

Thank you

- For various contributions of articles, event information, photo's, feedback, proof-reading, hunting up & providing other information as needed and general support.

A BIG THANK YOU TO:

Neil Humphreys,
Barbara Mau,
Maureen Runge,
Lorraine & Brian Weir
Victoria Morris

APS VIC DIARY DATES...

June 20 - APS Victoria COM Meeting hosted by APS Victoria at Royal Botanic Gardens Cranbourne, (RBGC), 10 am. Special General Meeting, 12:30 pm. Agenda: adoption of proposed rule changes.

September 5 - APS Wilson Park Plant Sale, Wilson Botanic Park, Princes Hwy, Berwick. 9 am - 4 pm.

September 5 & 6 - Bendigo Native Plants Group Flower Show, Rotary Gateway Park, 26 High Street, Kangaroo Flat.

September 12 & 13 - APS Yarra Yarra Native Plants Expo at Eltham Community &

Reception Centre, 801 Main Road Eltham (Melways 21 J6). 10 am - 4 pm both days.

September 19- & 20 - APS Colac/Otway Group hosting quarterly and APS Victoria AGM.

September 19 & 20 - Angair (Anglesea and Aireys Inlet Wildflower and Art Show), Anglesea Memorial Hall, McMillan St, Anglesea. 10am - 4:30 pm. Small entry fee.

October 3 & 4 - APS Grampians Group Pomonal Native Flower Show, Pomonal Hall. 9:30 am - 5 pm.

October 17 & 18 - South Gippsland Native Plant Sale & Flower Show, Gippsland

Historical Automobile Club Pavilion, Leongatha. 10 am - 4 pm. Enquires: Coral 5664 2221

October 24 - APS Echuca Moama Native Flower Showcase. Echuca Uniting Church Hall, Hare St, Echuca.

November 15-20 - 28th ANPSA Biennial Conference, Canberra. "Bush Capital, Garden City". Website: anpsa.org.au/conference2015/.



Information on our APS Mitchell Annual Spring Plant Expo & Sale is now on page 14...

Committee & Contact Information

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Email: wattlegum@southernphone.com.au

Post: PO Box 381, Pyalong Vic 3521

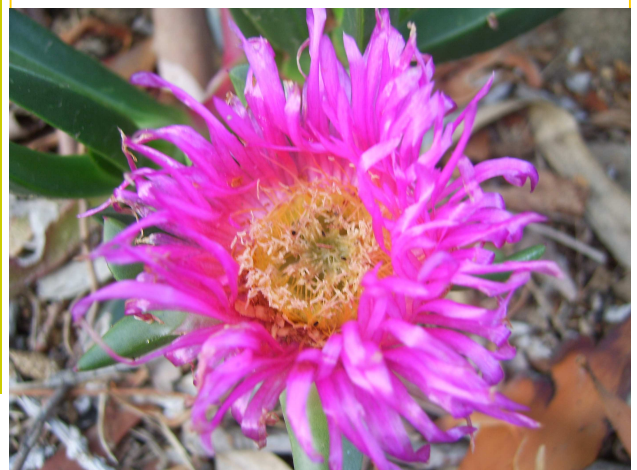
For inclusion in the next Newsletter please forward contributions prior to the first Monday of each month.

Query Corner?

Thank you to everyone who has donated sturdy, larger jars and vases for our Plant Expo Kit. More will not go astray so feel free to save, collect & continue to bring them along to monthly meetings.

Alternatively contact a committee member to organise collection or send an email to:

apsmitchel@gmail.com



Carpobrotus rossii

Photo: Jeanine Petts

APS Mitchell
Annual Spring Plant Expo & Sale
October 17th, 2015



9 am - 3 pm

Kilmore Memorial Hall

14 Sydney St, Kilmore



Native Plant & Flower Displays



Kilmore Art Society Display

Art by Local Artists:

Themes of native fauna, flora and Aussie landscapes



Plant, Book & Art Sales

APS Mitchell - Assorted Native plants

APS Victoria - Books

Joan & Peter Broughton, Ironstone Park - Assorted Plants

John Forrester - Assorted plants

Kilmore Art Society - Art by local artists

Lorraine & Brian Weir - Low graft & Standard grafted Grevilleas & Correas

La Trobe indigenous plant nursery - Indigenous tube stocks

Mike Williams - Assorted Plants

Russell Waite - Assorted Plants



Volunteers will be needed to assist with: Set up on Friday October 16th, also on Saturday October 17th with Ticket Sales/Entry, Plant Sales, Catering (Tea & Coffee), Pack up & Clean up etc. Please speak to a committee member if you are able to assist.