

EPACRIS STUDY GROUP



Epacris navicularis

GROUP LEADER: *Ron Crowden*
SECRETARY/TREASURER: *Dick Burns*

17 Deviation Rd
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NEWSLETTER

(ISSN 1038-6017)

Number 4
Sept 1994

G'day everyone,

It's a bit hard to say "Spring is Here!" since as is usual in Tasmania, when it snows it snows in spring. But things are happening around the garden; *Epacris reclinata* has been flowering in glowing colours for over a month, there are buds all over *E. gunnii*, (double), *E. 'Union Bridge'*, *E. 'Gog'*, and *E. myrtifolia*. *Epacris longiflora* just never stops, and *E. microphylla* has had flowers on the branch tips throughout the year. Cuttings struck through winter were *E.gunnii* (double), *E. glabella*, *E. longiflora* (two forms of) and maybe *E. heteronema*.

Membership continues to grow: next issue we'll have a two-page list of members, as long as everyone renews their membership. There is a prevalence of Tasmanians; I feel I'm preaching to the converted here in Epacrisland. How do we spread the word? Victorians Bill and Bob are keen about doing that, so hopefully we'll get more from that State. The species profiles in this issue aren't really encouraging for those north of Sydney, but check what Barbara Henderson says in the Wallum newsletter.

SUBS ARE NOW DUE

For this year they are: \$5 (Australia) or \$10 (overseas)

If you are not sure that you've paid this year, check our membership list. If there is a (94) against your name, my records show you've paid.

FINANCIAL FUMBLINGS

When the Silver Bodgie described his mate as "the World's Greatest Treasurer", I felt not at all slighted. It's a position I would never aspire to. As a Scout Leader (eons ago) I couldn't even get the subs book to balance (weekly subs were sixpence). My personal budgeting method consists of "Wow! There's some money in my wallet!"

I've just noticed that ASGAP By-laws require a regular Financial statement. So it is with some pride, I present the following. The "ins-and-outs" matched the balance on the first count, with no crossing out.

Please send congratulations to the above address.

COMMENTS

1. Printing costs of the newsletter have been minimal up till now, but that could change at any time.
2. The bank account is with the Tasmanian Trust Bank. They have only started charging this year - \$2 per month for accounts less than \$200. I will transfer to a more friendly Credit Union soon.
3. The Government charges are due to an oversight by either me or the Bank; I'm not sure which.
4. I was a bit concerned about accumulating so much, but who knows what we may decide

to do as a Group in the future (eg display materials, propagation).

FINANCIAL STATEMENT FOR THE PERIOD 24.7.92 to 31.7.94

INCOME		OUTGO	
establishment donation from ASGAP	\$50.00	establishing stationery	\$78.15
		postage - general	\$24.45
subscriptions/donations	\$380.00	postage - newsletter	\$64.50
bank interest	\$4.48	newsletter paper/printing	\$15.00
total	\$434.48	herbarium sheets	\$20.00
		bank charges	\$20.00
less expenditure of	\$224.85	government charges	\$2.75
balance	\$209.63	total	\$224.85
this consists of			
bank account balance	\$186.73		
stamps	\$5.00		
petty cash	\$17.90		

NSW BUSHFIRES

All the NSW newsletters I've seen, plus a few from elsewhere, have referred to this disaster, and to the severe losses experienced by many SGAP members. I'm sure those members of our group with friends or relatives in the affected areas have checked and assisted where possible.

Having reported on the find of *Epacris sparsa* in the Grosse Valley last issue, I was concerned when I heard of the fires burning in that Valley. But the Grosse Valley stretches a long way. Has anyone heard anything?

FROM THE NEWSLETTERS AND CORRESPONDENCE

Very soon after the last newsletter went out, Malcolm Reed wrote with some exciting news he had obtained from a conference. The news was that a research team at Kings Park, Perth had found out that it is cold smoke, rather than fire, that promotes germination in some plants. Bill Gunn wrote along similar lines, saying that the full report would be in the *Australian Journal of Botany* and in *Australian Horticulture*. *Danthonia* vol3 no1 has a comprehensive outline of the research.

At Kings Park, they found that smoke-derived substances caused a 10- to 50- fold increase in total promotion of germination. The technique has been applied to the germination of 41 species and 30 genera of Australian plants. The smoke was derived from burning a range of 'bush' materials and was applied as a fumigant, a liquid and in sand. All methods increased germination rate, but fumigation was the most successful. The smoke was cooled before exposure to the seeds. The researchers are now trying to identify the particular components of smoke that are responsible.

Plant groups responsive to the treatment include *Verticordia*, *Conospermum*, *Eriostemon*, *Pimelea*, and four species of *Epacridaceae*. Malcolm says that these included *Woolisia* sp and *Lyonema* sp.

Malcolm has since written to say that he has tried out the method himself, successfully. His technique is as follows.

1. Add green leaves, dead leaves and twigs to a fire to promote lots of smoke.
2. Put some absorbent paper on a toasting fork.
3. Hold the paper in the smoke until the paper is honey-coloured.
4. Wet the paper in a dish; spread the seeds and keep them moist for a month or two. Avoid direct sunlight.

Malcolm's germination rate for *Epacris pulchella* was 33% instead of 3%. At the stage of writing, *Woolisia pungens* had not responded.

Malcolm sent me a piece of his smoked paper (filter paper), so I immediately set to with my own trial. No results from Penguin yet.

from **SGAP Vic newsletter** of Dec '93

In their letters, a Linda White asks for help in recognising *Epacris* seed. She tried collecting *Epacris impressa* but with no luck. She tried placing a paper bag over plants that had just finished flowering. But all she got was dead flower bits and nothing that sprouted. Linda was sure that the

plants set seed because of the nearby seedlings.

I'm as vague as Linda about this, so I'd join her in asking how to collect and recognise seed. I'm sure that many others in the Epacris Study Group are in the same boat. Could someone please write a detailed method of seed collection and sorting?

from **SGAP Vic newsletter** of Mar '94

The Editor reported that the Grevillea Study Group was using "stay-fresh" bags to send cuttings through the mail. These bags are designed to keep vegetables fresh in the fridge. They do this by absorbing the ethylene given off as the plant material deteriorates. See the section on Cutting Exchange for a trial with **Epacris**. The Editor is also our newest member, Bob O'Neill. Bob is keen to establish a complete collection of **Epacris** species (see requests).

from **SGAP Tas 'Eucryphia'** Mar '94

This issue contains an excellent detailed discussion of the different kinds of fruits used by flowering plants to contain and disperse their seeds. It's worth a look, even though it is written in reference to Tasmanian plants. The detail and many diagrams make it a useful reference, and it gives a clear explanation of what for many of us is a cloudy field.

The fruit for **Epacris** is called a capsule.

from **Wallum Study Group newsletter** no3, May '94

Barbara Henderson talks of a deep pink **Epacris pulchella** flowering in autumn at Burwah (north of Brisbane). Barbara has tried transferring from the wild **Epacris obtusifolia** and **E. microphylla** to her garden: the first was successful.

EPACRIS HERBARIUM

Now is the time.

I've enclosed another copy of the herbarium sheet for your collection.

Malcolm Reed had some good specimens lined up last summer, but the fires beat him to them.

A Herbarium should contain as many specimens as possible from different provenances. I'm ready for your samples, pressed or unpressed.

AN HISTORIC NOTE

Jan Sked has compiled a history of Study Groups, a mighty job indeed. SGAP itself started in 1957, and the first **Australian Plants** was published two years later, in 1959. Spread through issues of Volume 1 of that journal were references to Study Groups, 18 in all. Included amongst those is "Epacris Study Group". Jan could find no mention of a leader, so perhaps it was just an idea of Editor Bill Payne. By 1966, Mrs Robertson of Kilsyth, Victoria, had become leader of an **Epacridaceae** Study Group. But we had faded by 1972 and in 1976, Jeanette Closs as Study Group Co-ordinator had no reference to any such Group.

Most Study Groups seem to have had similar chequered histories. Only a few have been continuous since inauguration. Study Group Leaders I have talked to all say that the strength of a Group lies not just in the enthusiasm of the Leader, but also in the feedback from members.

CUTTING EXCHANGE

Speaking of feedback, this idea is up and running. Well it has started. Jeanette Closs has helped out Bill Gunn and Sue Arnold. I've passed on material to Jan Hayhurst, Jeff Irons, Bob O'Neill and the Tasmanian Botanic Gardens. As well, some of the "locals" have raided the Penguin garden.

Regarding Postage. Australia Post now has four sized packs for overnight express delivery within Australia. The material you wish to send has to fit inside the plastic envelope supplied. The \$2.80 and \$3.80 packs are meant for documents. The \$4.80 pack can be bulky and up to 500g in weight, and the \$6.80 can be as thick as will fit and up to 3kg. Bob's pack included about 8 different species and a few newsletters; it weighed less than 500g.

Regarding Packing. Jeanette Closs doesn't use damp newspaper when packing in case the delivery is delayed. I had a disaster when I sent **Asteraceae** by ordinary mail; three weeks later when they arrived they were brown mush. But when someone sent me cuttings by Ipec Overnight wrapped in damp paper, and the delivery took a week, all were still green; I had a good strike of all **Proteaceae** that were sent, including **Persoonia marginata**. So it looks like it depends on that kind of plant.

Read on ---

4.

Jeff Irons lives in England and on 30/3/94 I sent him cutting material from *Epacris myrtifolia*, *E. curtisiae*, *E. 'Gog'*, *E. 'Union Bridge'*, *Pentachondra ericaefolia*, *Trochocarpa gunnii*, *Leptospermum riparium* and *Spyridium microphyllum*. Each specimen was attached to a plastic label, wrapped in either a quarter or half of a page of tabloid newspaper (enough to just enclose the specimen) then passed quickly under the tap to just wet all the paper. The bundle was given a quick shake, then all packed loosely in the one 'stay -fresh' bag. I think I enclosed the lot in a padded post pack.

The pack arrived on Saturday April 9, "in excellent condition". The cuttings were put into warm water, left for twenty minutes, transferred to cold water and left till Monday morning. They were then taken to the local Botanic Gardens, Ness Gardens. On July 25, Jeff wrote to report the following strike rate.

<i>Leptospermum riparium</i>	15 out of 15
<i>Pentachondra ericaefolia</i>	17 out of 17
<i>Epacris myrtifolia</i>	5 out of 9
<i>Epacris curtisiae</i>	nil
<i>Epacris 'Union Bridge'</i>	11 out of 14
<i>Epacris 'Gog'</i>	14 out of 28
<i>Trochocarpa gunnii</i>	3 potted, 12 still unrooted
<i>Spyridium microphyllum</i>	nil

SWEET EPACRIS?

Epacris spp rate a mention in Wrigley and Fagg's *Aromatic Plants* (Angus and Robertson, 1990). The following species are reported to have a fragrance: *Epacris brevifolia*, *E. marginata*, *E. obtusifolia*, *E. robusta*, *E. serpyllifolia*. I've never noticed, even when in a white field of flowering *E. serpyllifolia*. Can anyone confirm the fragrance? And if so, what other species?

THIS ISSUE'S SPECIES PROFILES

1. *Epacris reclinata*.

For me this species has been slow growing, and an irregular flowerer. But this year it is in full glory - hence the choice.

The species name means 'bent back', referring to its growth habit. It comes from the upper Blue Mountains, NSW, where it grows trailing over sheltered, often damp rock ledges, or in gullies. Flowers, ranging in colour from pale mauve to pink and bright red, appear in profusion through winter and spring. There are photos in *Australian Plants* vol14, no115, p292, and in *Native Plants of the Sydney District* p93.

In the garden books, size is given as 0.6-1m x 0.6-1m. The normally-available form is a deep pink; mine is nursery stock and also has whitish petal tips. My plant grows in a poor loamy soil well drained, and bone dry in summer. It is well shaded. The books say it likes moist, well-drained soils, tolerant of some wetness and non-stagnant bogs. Soils may be light to medium. The plant is tolerant of frosts down to -7°C and of heavy shade. Tip prune the plant to keep it dense.

A report in *Australian Plants* says it grew well in the Latrobe Valley in undrained clay soil for at least 7 years. Another report, from Sydney, said the species was difficult to grow. Looking at Study Group reports, this is confirmed. Malcolm Reed's plant in Sydney died after 2 years. Jeanette Closs' plant in Hobart also died, but other Tasmanians report success (George Wade in Hobart, Jennie Lawrence in Burnie, and Marion and John Simmons in that frostiest of hollows, legana). Jennie is on clay, George is on black clay loam. He feeds regularly with blood and bone and gets vigorous growth.

Epacris reclinata come highly recommended, but it seems only for the cooler areas where it tolerates a diversity of treatments.

2. *Epacris gunnii*

A Tasmanian endemic, this species was named to honour one of our major, early collectors, Ronald Gunn. I've had two forms, a bush-collected single flowering form, and a commercially available double flowered form. Some have said that once you see the double, the single is nothing, but I disagree. The double is a spectacular flower, but my plant is straggly, while the single was a dense erect plant to about 1.2m and would become covered in masses of white flowers in summer. The flowers are typically Tasmanian, with short tubes and starry large petals arranged in spikes. I use the past tense because it died after about twelve years, last year. It was planted against the hot house, so was in perpetually wet and soggy soil.

Occasionally you find this plant listed in mainland books as *Epacris microphylla* ssp *gunnii*, but if there is no other difference, the flowers are twice the size on *E. gunnii*. Its distribution through the State is diverse, from our coldest to our warmest, from the sub-alpine highlands to the dry East Coast. The double form was reportedly found near the council tip for Margate, a southern suburb of Hobart.

Growth size given in books ranges (0.3-1.5m x 0.3-1m). It is stated to prefer moist well-drained light to medium soils. In Canberra it needs constant moisture. It tolerates heavy shade and frosts down to -7°C. Marion Simmons had some plants in the 1960s, one growing on a clay bank, up to 2m tall. Kris Schaffer has both the single and double growing in Hobart on dolerite-based soil. Will Fletcher, Jeanette and George have plants; Jeanette's soil is heavy basalt soil. Jennie in Burnie grows *E.gunnii*. It will be interesting to see how Bill Gunn and Bob O'Neill get on in Victoria with their newly rooted plants

I would expect that like mine, all the single plants are from wild collections.

I've only seen *E.microphylla* flowering in the wild once, and have a 0.5m plant in the garden, but I believe *E. gunnii* is superior. You will have to take my word for that: I couldn't find any good easily-accessible photos to refer you to. For the Sydney and beyond members, we'll have to send you collections from the East Coast.

REQUESTS FOR CUTTINGS

My mainland collection needs a boost.

Can anyone help me with *Epacris pulchella*, *E. purpurascens* or *Woolisia pungens*?

Bob O'Neill's ambition is to have in his garden all the species of *Epacris*.

He has seven species as plants already and I've sent a bundle of cuttings. If anyone can help in this project, please get in touch with Bob, or I can supply you with a list of plants Bob already has.

Both will be definite exchanges, and not necessarily *Epacris*. I can offer other Tasmanian endemics, Bob has quite a collection of *Correas*.

Last issue, I promised the results from Naomi Lawrence's thesis work on *Epacridaceae*. Her cutting technique was detailed on p5 of newsletter no3, and the general discussion from her thesis formed an attachment. The results that I have follow this. Remember that C1 indicates that the rooting hormone used was *Clonex* for softwood cuttings, C2 was *Clonex* for hardwood cuttings.

till next time - Dick Burns

Species	Number of Days before root formation evident
<i>Epacris impressa</i>	32
<i>Pentachondra ericaefolia</i>	63
<i>Prionotes cerinthoides</i>	72-102
<i>Astroloma humifusum</i>	133
<i>Cyathodes juniperina</i>	89-133

Table 6 The approximate number of days before root formation was evident on cuttings.

Application of the rooting agent appeared to have a promotive effect with C1 giving better results in late summer than C2. It is interesting that after the prime collection time only cuttings treated with C2 rooted; this indicates that cuttings needed help at this stage to initiate roots. The strike rate in this species was considerably lower than that for *Cyathodes* a fact which is not consistent with previous reports for the two species. It was noted that like *Astroloma* cuttings, *Epacris impressa* also put out new growth and shoots before root formation.

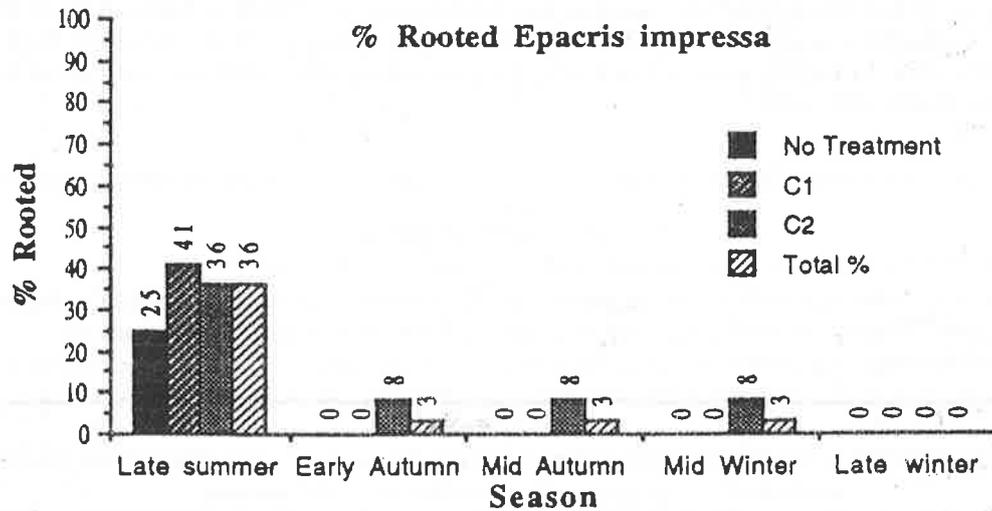


Figure 23. Graph showing the % of rooted cutting for *Epacris impressa*. Total is the % of all cutting which rooted.

Figure 24 shows that *Pentachondra ericaefolia* cuttings had a marked seasonal response with late summer being the optimum time for taking cuttings. The rooting agent increased strike rates and C1 gave the best promotion of rooting. Again in autumn and winter only cuttings treated with hormones rooted.

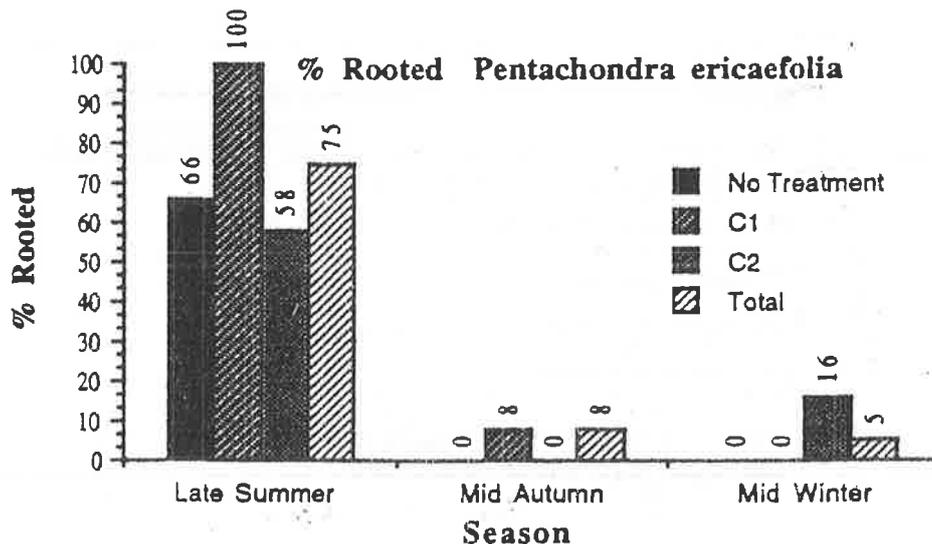


Figure 24 Graph showing the % of rooted cutting for *Pentachondra ericaefolia*. Total is the % of all cuttings which rooted.

EPACRIS STUDY GROUP HERBARIUM

Field name: Epacris

Determined name: Epacris

Determined by:

State & District: map: scale: 1:

Location reference: grid: or: lat: 0 long: 1 0

Location description:

altitude:

Topography:

aspect:

Substrate:

bedrock:

Vegetation:

Abundance: Height: Spread:

Habit description:

Notes:

Collector:

Date:

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Topography: valley, hilltop, cliff, slope (see diagram), flat, waterway, etc.

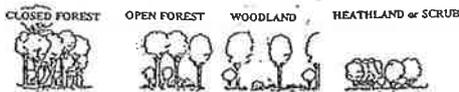
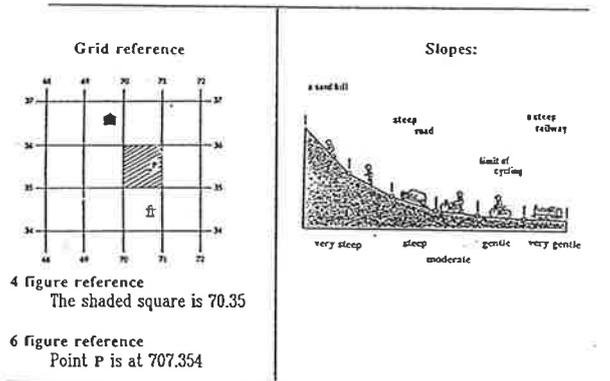
Substrate: describing soil - sand, clay, loam, silt, or combinations thereof.

colour, wetness
skeletal, shallow (<30cm), deep (>30cm), gravelly, littered, etc.

Vegetation: basic types - closed forest, open forest, woodland, heathland or scrub (coastal, alpine), grassland.

Abundance: dominant, common, frequent, occasional, rare.
or
extensive/large/medium/small clumps.

Habit description: shrub; open, diffuse, dense, crooked, etc
erect, ascending, sprawling, prostrate, etc.
many/few/long/short stemmed,
wind pruned, browsed, etc.



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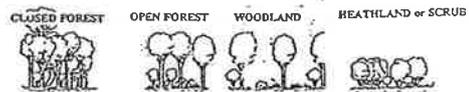
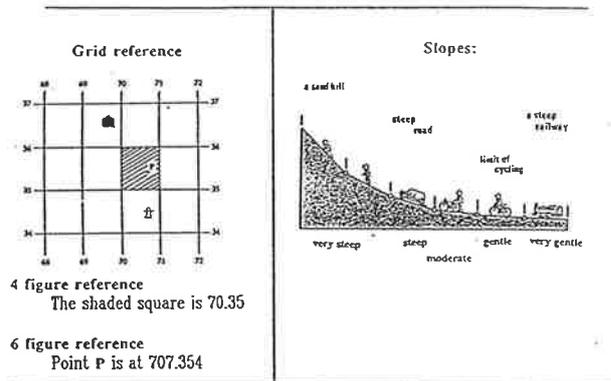
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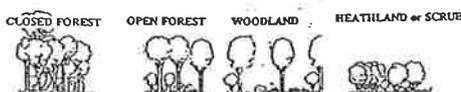
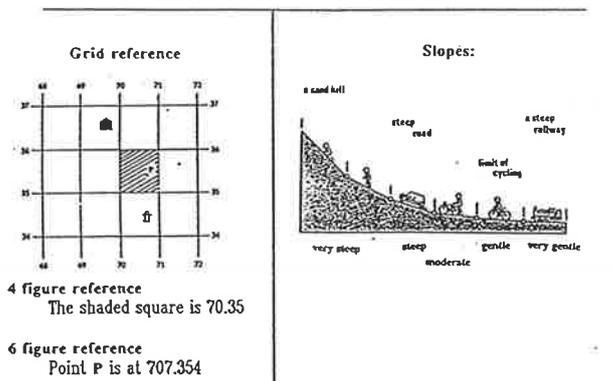
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