

EPACRIS STUDY GROUP



Epacris navicularis

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NEWSLETTER

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G,day again,

It seems that every newsletter that I read lately starts out with an apology about lateness due to sickness or something similar. I hope you don't mind my using the same reason.

We had terrific response to the new Study Group, as you can see from the enclosed address list. There has been some interesting correspondence, some requests for advice and a few interesting returns on the questionnaires. More on them later in the newsletter.

Your subs, and the initial grant from ASGAP, have helped me collect together some secretarial gear and set up some sort of system, and leave us with a healthy bank balance. The thing that I've done that should be most useful to Study Group members is an "Epacris Species File". At this stage it consists of a basic description of each species, and then all the references I could find in "Australian Plants" and any of my collection of books. The most useful single reference was Elliot and Jones Encyclopaedia. What is your favourite Epacris reference?

I intend to do resumes of different species for this and subsequent newsletters, sometimes of those I know, sometimes of those I'd like to know. How about you doing the same for the next newsletter? *

PROPAGATION and EXCHANGE

One of the main functions of the Study Group is to examine the propagation of **Epacris spp**, and to help members in that process. Last newsletter, I outlined my method for dealing with cuttings. Despite my training as a science teacher, and my continual harping to the kids about the need for good recording, I still haven't started recording propagation efforts. But I can tell you that I've tried the DB method on three species since last newsletter; **Epacris grandis** tried in late Nov, **E. navicularis** tried in late Jan, and **E. species** (Mt Cameron), collected late spring. The first failed, the second are still green after three months, and the third lot struck rapidly.

It is normal practice for SGAP Groups to set up seed collections, so perhaps we should have our own. I've had no experience with Epacris seed, and I could find no listings for the genus in any catalogues I checked, so I'm wondering about the viability of the idea of an Epacris Seed List.

So at this stage I'd suggest we run a Cutting Exchange system. If you would like to try a species, or form, send your request to me, and I could send on your request to someone I know has that plant (from their questionnaire) or else advertise the request in the next newsletter. Please let me know what you think of the idea, or of improvements/alternatives. Regarding seed, here I'll quote what Elliot and Jones say.

"To gather the fine seed, the ripening capsules need to be kept under regular observation and

collected just when beginning to split in the warm weather. They should then be placed in a paper bag or (other) dry open container. When the seed is released it can be stored in an airtight container.

There is some evidence that the seed has a dormancy period and that best results are obtained if it is stored in a cool, dark place for 3-6 months before sowing.

Plants are not commonly grown from seed, but good success can be gained by using the bog method or capillary beds.

The seed is very fine, and must be spread thinly over the surface of the propagation mixture. If the medium is kept constantly moist, germination should occur within 10-20 weeks.

Australian Plants vol 3 p197/8 says this about seed,

Seed must be after-ripened (by storing) for 12-16 weeks in a cool dry room. Prepare a container... with very poor drainage and filled with coarse washed sand. The seed is sown on the surface and must be kept moist by frequent watering.

THE QUIZ

I might have stumped myself on this one: I didn't record the answers myself, and it is some time since I set it. All the answers were Epacrid genera.

1. Because it was winter, Jack and Jill needed **Woollisia**. (a pun)
2. At the top of the hill they would find **Epacris**. (*epi*, upon, *acris*, a summit)
3. The rolling fruit they tripped on would be **Trochocarpa**. (*trochos*, wheel, *karpos*, fruit)
4. And the fringed crown was (I think) **Brachyloma**. (*brachys*, short, *loma*, fringe, alluding to the hairs on the throat of the corolla)

A LIVING COLLECTION OF EPACRIS

Am I thinking too far ahead? Some Study Groups have established a living collection. This Group could search for a suitable site as an exclusive Epacris Garden, or else encourage an established Garden to expand its Epacris collection. For instance, the Australian National Botanic Gardens in Canberra already has 29 species and forms in cultivation, according to the 1991 Catalogue of Living Plants, and I have sent other species since that date. Is there some other suitable site? Your thoughts please!

FROM THE CORRESPONDENCE

Our most far-flung member is Jeff Irons from England. Jeff is retired and has a large garden in which to grow one of the largest collections of Australian plants in the U.K. He has been interested in Epacrids for years. Over the past few years drought and other factors have reduced his collection of Epacrids, so currently Jeff has only one Epacris, **Epacris petrophila**. (Incidentally my plant at Penguin was a real eyecatcher when flowering last season -DB.) Jeff would like more plants or seed.

Naomi Lawrence last year was working towards her Honours Degree at our University, and her thesis topic was on the propagation of **Epacridaceae**. I hope to have more details on this for a future newsletter.

Joyce Batchelor and Ted Milne are (like me) escapees from Sydney to Tasmania. They are establishing themselves on a 5 acre bush block south of Hobart. Any plants added to the garden will have to be "self sufficient" and Tasmanian. Just before they moved in 2 years ago, a scrub fire swept through. Joyce and Ted report that amongst the regrowth, there have been no **Epacris spp**, although **E. impressa** and **E. virgata** are in the local area.

The two Botanic Gardens have joined mainly for the purpose of information exchange, an idea that both they and we should benefit from.

PS
More profiles next time.

FROM THE NEWSLETTERS

Here are some tidbits from other newsletters that have come my way.

- from the Australian Network for Plant Conservation:

In their "Preliminary Listing of the National Endangered Species Collection" of January 1993, two species of *Epacris* are listed as being endangered. A species is considered if its numbers in the wild are at a critical level, or if its habitat is so small that extinction is a real danger. The two species are *Epacris hamiltonii* from NSW, and *E. stuartii* from Tas. The first species is in cultivation at the National Botanic Gardens, and (I assume) the Sydney Botanic Gardens. The Network has no report of *E. stuartii* in cultivation.

- from SGAP - Vic. Newsletter for September 1992:

On p14, Barbara Buchanan has outlined, and speculated on the concept of "Botanical Networking". Networking, in this case, is an attempt to explain why some groups of organisms have a large number of closely-allied forms, called "swarms". It is a basic principle of biology that inheritance is controlled by the passing of genetic material (DNA) down through the generations, from parent to offspring. Evolutionary change is triggered when the DNA is altered in the reproductive cells prior to or during this process. But it is now apparently accepted that the evolution of micro-organisms (bacteria, etc.) is best represented by an interconnected network. This means that the organisms exchange some of their DNA across the current generation, even with other species.

So variations arise within both species due to this "lateral gene transfer". Barbara argues that this transfer may also occur in higher plants, with the assistance of parasites such as viruses. She uses *Eucalyptus*, *Brachyscome*, *Hibbertia* and *Banksia* as examples. I find the diversity of *Epacris* in Tasmania remarkable so (and here's the reason for so much science) I wonder if the idea of networking could help explain this diversity. (I guess Ron will tell me why not now.)

- from the SGAP - Tas. newsletter, Sept 1992:

On p3, Ron Crowden describes the current situation with the species of *Epacrids* in Tasmania. Concerning the genus *Epacris*, he points out that when our main reference for Tas flora was published in 1963, there were 18 species of *Epacris* described. Since then there have been 10 additional species, and one deletion. The deletion is *E. paludosa*. For the additions, I'll quote Ron.

"Newly described species .. in Tasmania are *E. apsleyensis*, *E. grandis* and *E. limbata* all from the central east coast region (inland from Bicheno), *E. navicularis* from high altitudes on southwestern mountains, *E. glabella* found on the serpentine rock outcrops near Zeehan and *E. curtisiae* which occurs on buttongrass plains of the far northwest, replacing the better known *E. corymbifolia* of the southwest buttongrass. The plant from Mt Cameron in the northeast (and elsewhere) I believe to be a new species. There is still a major problem area in genus *Epacris* to be resolved which concerns the riverine species, wrongly dubbed *E. exserta* which occurs along the Meander, Mersey and Leven Rivers and its relationship to *E. mucronulata*, and whether in fact *E. mucronulata* refers to the plant on the Huon River system, or to the quite different one (previously known as *E. franklinii*) found on the Gordon/Pieman systems. One final comment concerning *E. tasmanica*/*E. virgata*. The plant from southeastern Tasmania generally referred to as *E. tasmanica*, is now seen as a "mixture" of these two species. *E. tasmanica* in my view is that (variable) species which is found generally along the east coast north of Buckland to about Bicheno, and inland down the St Pauls River Valley to as far as Avoca. The species on Tasman Peninsula and around Hobart/Snug/Leslie Vale is *E. virgata*."

Australian Plants vol 3 no 25 has major articles on *Epacridaceae*.

EPACRIS from AUSTRALIAN PLANT STUDY GROUP

I've enclosed a copy of the above book for individual members. That number of copies was donated by the Study Group. I received them second-hand so I don't know who in particular to thank, so thank you Australian Plant Study Group.

QUIZ NO. 2

I had indications that some tried the first quiz, so here's another. This time the answers are all Epacris species. I've based the questions on information in the enclosed **Epacris** along with a bit of general knowledge. The clues may contain a cryptic description of the name, along with a bit about the plant itself.

- 1) an impressive, many -coloured State representative
- 2) the lady of the Never-Never or an Island State collector? Its white starry flowers make brilliant displays in the Tasmanian highlands (If member Bill doesn't get this one...)
- 3) a white/cream woolly swamp dweller. Pretty dense in the head this one!
- 4) the rock-lover, from a distance seems to have no leaves. Its white flowers look like snow on the ground, or are real eyecatchers at Penguin
- 5) does this one lie down? Its pink or red flowers make quite a show in the upper Blue Mountains.
- 6) was Robert Brown colourblind? This one has pink flowers, sometimes white, but never the colour he saw. It likes the wet spots around Sydney.

PROFILES

1. *Epacris longiflora* Cav (referring to the flower length)

I've chosen to start our species examination with the one most commonly available through nurseries. If you are not familiar with this species, make it a top priority to do so. Descriptions abound: check **Epacris**, Wrigley and Fagg, etc. It appears in **Australian Plants** index twenty times and almost all these references are from NSW or Victorian articles.

The photos in SGAP(QLD)'s **A Horticultural Guide to Australian Plants (set 7)** p57 and on the cover of **Australian Plants** vol 12 no 96 illustrate its colour variations. A white form is also available.

So over what range of conditions will it grow?

If nursery availability is an indicator, the species does not appear in any Brisbane or Perth catalogues I have.

My edition of **Grow, What, Where** (1980), places it in the following categories of tolerance: shady moist; sandy soil; coastal (second line); frost resistant; for flower pots; snow resistant. Comments from our Group's members:

Malcolm Reed of Pennant Hills, Sydney - white form bought in 1987 - has grown to 1m, in competition with hydrangeas - garden is on a steep slope, the soil consisting of building fill on some skeletal sand - flowering time Sept-Jan.

Marion Simmons of Legana, near Launceston - cutting-grown plant - in grey loam over river gravel - an open-shaded garden on a gentle slope towards the river, facing north. (In 1965, Marion write in **Australian Plants** that a young plant of *E. longiflora* survived June temperatures down to -6°C without any frost damage at all.

George Wade of Taroona, Hobart - a cutting-grown plant - established for 6 years - the plant is 80cm tall and flowers all year - his soil is black-clay-loam and the garden is on a gentle slope facing east - George feeds the plant regularly with compost and/or blood and bone - he has a very healthy plant that requires hard pruning.

Dick Burns of Penguin - has two plants - one bought 14 years ago (the strong red nursery form) and a five year old cutting-grown one bush-collected from Sydney - both plants are in poor red clay on a gentle slope facing west - the purchased plant is in full sun growing up through other plants and is the more vigorous plant - size 1m x 1m - hard pruning does not stop the straggling but spectacular growth - the cutting-grown plant is heavily shaded, is slower growing, but still

healthy - watering is minimal - plants are fed only at planting time.

Observation in the wild:

Two plants stick in my memory (DB). One was in a crevice on the edge of a low sandstone cliff above the waves in Royal National Park, south of Sydney. It was a rather stunted plant but still flowering. The other (the source of my cuttings) was among sandstone boulders halfway down a shaded gully in a suburban Sydney bushland park.

So at this stage, all we can add to book descriptions is

- the plant copes with a wide range of soil types.
- it does cope with some drying out.
- it tolerates a wide range of light exposure, from full sun to well-shaded.
- it is undamaged by frosts down to -6°C .

Epacris curtisiae Jarman (to honour Dr Winifred Curtis, Tasmanian botanist)

This newly described species is restricted to buttongrass and coastal heath in a narrow strip south of Smithton. It grows as a small erect shrub to 60cm on poor gravel soils, but I feel sure I've seen taller plants in more sheltered spots. During flowering time (late spring), it is easy to find, because of the profusion of delicate white starry flowers.

It is easy to propagate from cuttings and I have two plants in the garden. One is in heavy shade on loamy soil; it has grown to a tall lanky plant, almost unrecognisable. The other plant is in full sun on poor clay; it is a vigorous plant with many erect branches sprouting from the base.

It flowered well last season and had formed one flower spike this year, sacrificed for this newsletter.

The species is a fitting tribute to Dr Curtis.



Dick Burns
June 1993

PS I have marked some of the spots thus ✕ where I'd like a response from members.

