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ABOUT THIS ISSUE

The main theme of this issue is Grampians plants and their horticultural potential. The Grampians Ranges in Western Victoria are fascinating to any lover of Australian plants. They are a meeting place for plant species from, and in, many different environments, coastal to sub-alpine, desert to swamp. This wide variety of species and environments makes the Grampians an important source of genetic material for the selection and development of good forms of native plants for horticulture. Indeed many Grampians species mentioned in this issue are in regular cultivation but others await the arrival of an enthusiast to discover their needs in cultivation and then to teach us how to grow them successfully.

In this issue five Victorians who know and love the Grampians, each describe different aspects of Grampians plants and their horticultural potential. Two general surveys are followed by specific descriptions of the wattles, the pea flowers, and the grevilleas. Some species are covered more than once but each description covers a different aspect and adds to our total knowledge.

The second theme of this issue is Australian plant cultivars and the role of the Australian Cultivar Registration Authority (ACRA). The Society for Growing Australian Plants has supported A.C.R.A. from its inception, yet many SGAP members are not aware of how the A.C.R.A. is constituted or what it does. The article by Geoff Butler is published as a timely reminder of the importance of the A.C.R.A. to the aims of the SGAP. A further official release of newly registered cultivars is also included.

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EDITORIAL POLICY

Although Australian Plants is now being produced by an Editorial Committee, subscribers and contributors should note that despite the small changes that will occur in the presentation of the Journal there will be no change in the editorial policy for Australian Plants. It will continue to be the bridge between the botanist and the layman, and will continue to provide articles of value to people interested in the growing of native plants whether the authors are professionals or amateurs. In particular I repeat Bill Payne's oft-repeated plea for more reports from ordinary SGAP members of their experiences and experiments in growing Australian plants.

Bryan Loft, Chairman, Editorial Committee.

COVER PLATE: *Grevillea dimorpha*

Photography by B. A. Fuhrer

The clear bright red colour of the axillary flowers contrasts with the shiny dark green leaves of this Grampians endemic making the whole bush seem on fire at peak flowering. The aptly named "Flame Grevillea" is a very fine garden shrub of open rounded upright form about a metre high, which flowers between May and November.

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SOME GRAMPIANS FLOWERS

Jean Galbraith, Tyers, Victoria

In all Australian States there are places, usually mountains, which are a meeting place of plant species from different environments as well as having one or more species which are found on them and nowhere else — species endemic to that particular area. The Victorian Grampians are such a place, and as a result have a very rich flora indeed, about 800 species, including some of the most colourful and some of the most delicately beautiful in Victoria, with 20 species found nowhere else.

The Grampians are not a single range but four, more or less parallel, sandstone ranges with high eastward-facing scarps and rocky western slopes. They run approximately north and south, eighty kilometres from the relatively isolated Mt. Arapiles in the north to Mt. Sturgeon in the south. They look higher than they are because the scarps which glow red in the morning light and ochre at noon, rise straight from the plains. They are near the western end of the Dividing Range which, for very many kilometres before one reaches them is little more than a low ridge. The ranges are, apart from the highest summits, only 300 to 700 metres high, but Mt. William, in the easternmost Mt. William Range, is nearly 1,300 metres, high enough for some almost subalpine vegetation. The sandstone scarps and the tumbled rocky slopes behind them are the homes of most of the more decorative species though there are some sheltered gullies where treeferns and other ferns grow, and wide damp valleys where one finds such moisture-loving species as the Lax Marsh-flower (*Villarsia umbricola*) with light green leaves and tall but often bending sprays of golden flowers, as well as many species that like damp peaty soil, like the acres of Pink Swamp Heath (*Sprengelia incarnata*) between Mt. William and Sierra Ranges.

To add to the variety there are invaders from the north, species otherwise at home in the Little and Big Deserts, and from the south, for there are not only coastal species but two (*Pomaderris apetala* and *Leptospermum nitidum*) which are widespread in Tasmania but known from no other part of the mainland. Similarly there are species which are not found again until you reach East Gippsland or eastern New South Wales, and some characteristic South Australian species which have their western limit here. A few thriving in the Grampians are not found again until one reaches Western Australia.

In some cases it is hard to decide whether outlying plants have invaded the Grampians area or Grampians' plants have gone farther afield. This last seems to apply to *Calceolaria cyanea* which extends from the Grampians a short distance into South Australia and southward towards Portland. It is not known anywhere else except in Western Australia where there are enough differences for it to be suggested that the Western Australian form should be treated as a different species. In that case *C. cyanea* would be endemic to the Grampians area, treated broadly to cover similar soils extending south, west and north some distance from the ranges.

It is impossible in one article to discuss the whole Grampians flora, or even all the endemic species and those not found elsewhere in Victoria, but we can look at a few species; trees, tall and dwarf shrubs and ground cover, of special interest to growers of native plants, and beginning with an endemic climber that would grace any garden.



Epacris impressa

Photography by B. A. Fuhrer

The floral emblem of Victoria, "Common Heath" is widespread throughout South-Eastern Australia including Tasmania. The small tubular axillary flowers vary in colour from white through pale pink and rose to deep crimson and scarlet. As well as all these colour forms, the Grampians have the endemic variety *grandiflora* with downy foliage and larger wider bells of rosy-red which grows on rock faces and ledges.



The Grampians Ranges

Photography by Dr. Ross Macdonald

The parallel range structure of the Grampians and the sheer rockfaces on the eastern side of each range is shown in this view looking west from Mt. William over the Serra Range to the Victoria Range in the distance. This structure gives rise to habitats ranging from sub-alpine on the higher ridge tops to sheltered fern gullies.



Thryptomene calycina

One of the best known Grampians plants in cultivation, *Thryptomene calycina* forms a large dense spreading bush 2-3 m high by 3-4 m wide. The leaves are small, aromatic, dark green oblanceolate and 8-12 mm long. In winter and early spring the bush is covered with masses of small white flowers. The photograph shows both the golden centres of the young flowers and the dull red of mature ones.

It is Orange Bell-climber (*Billardiera bignoniacea* formerly *Marianthus bignoniaceus*) which grows readily from cuttings, and probably from seed also for its fruits are very like those of the closely related *Sollya* which can be embarrassingly generous with seedlings. It is a light and twiggy climber, not rampant, but growing freely into a tangle of thin reddish stems and small leaves, hung thickly in spring with soft orange bells shading to green at the base, about 3 cm long, slightly contracted toward the end, then delicately but shortly flared.

The one endemic eucalypt of the Grampians is a tree of the mountain tops. It is Grampians Gum (*Eucalyptus alpina*). It is perhaps more curious than beautiful, but its broad, leathery, shining leaves are pleasant; its lumpy little buds and large fruits are curious, its flowers small and white. On top of Mt. Rosea and Mt. William it has the gnarled habit of a Snow Gum, but, like Snow Gums, it grows taller and straight when treated well in the lowlands.

Shrubs

Of the two large shrubs which the Grampians share with Tasmania, *Tainui* (*Pomaderris apetala*) differs from Hazel Pomaderris (*P. aspera*) mainly in the dense hairs covering the backs of the leaves, but Shiny Teatree (*Leptospermum nitidum*) is a shrub of distinction — tall and bushy with shining leaves and inch-wide white flowers, their centres outlined in red where the sepals show between the petals. It flowers freely and when not in flower is still attractive because of its bright leaves.

The Mt. Byron Bush-pea (*Pultenaea patellifolia*), an endemic species, can be as tall as Shiny Teatree but is usually smaller and more slender. It is one of the most decorative of the yellow-flowered bush-peas. The red of the keel gives the abundant flowers distinction and the graceful sprays are set with tiny circular leaves. I have not seen Mt. Byron Bush-pea in cultivation but it would certainly be worth growing.

Rosy Bush-pea (*Pultenaea subalpina*) has stiffer branches and narrow leaves and though it can be large and spreading, it is normally about a metre high and often equally wide. It is not only endemic to the Grampians, it is also the only bush-pea anywhere without yellow or orange flowers. Every branchlet bears a terminal cluster of glowing rose-purple flowers, or perhaps we should say purple-rose for the rosy colour predominates. It is a quite indescribable colour. When it has been picked for a short time it is bright but opaque but when growing the flowers glow almost like light. Incidentally, it is strictly protected and the only picked flowers I have seen (some sprays for photography) were gathered before we had any Wildflower Protection Act. I grew it for some years but at a time when I knew so little of its requirements that I do not wonder it never flowered. There are three other bush-peas endemic to the Grampians, but to me the two described are the most beautiful.

In the same colour range as Rosy Bush-pea, but with darker, almost magenta flowers, is the Grampians bauera (*Bauera sessiliflora*), well known in cultivation, with its bright stalkless flowers with black stamens clustered above rings of six small downy leaflets. In the Grampians it is chiefly a plant of stream-sides where the tangle of its thin stems, almost hidden by flowers, may cover the whole stream, but in cultivation, where it is normally a shapely bush, it is very accommodating, though it does like some shelter and a well-drained but not dry position.

Much more compact is the leafy shrub, Hairy Correa (*Correa aemula*) with hairy stems and hairy heart-shaped leaves as a background for its delicate, almost translucent green bells, indigo-throated, hanging from calyces which are divided almost to the base into pointed green lobes. It is widespread and

accommodating in its native Grampians, growing in sun or shade, and I have found it easy to grow and flower in Gippsland although not long-lived, perhaps because it likes more shelter than I gave it.

Different again in habit and colour and of more specialised habitat is the endemic Flame Grevillea (*Grevillea dimorpha*) with erect stems and clusters of bright red flowers with long styles, between the long silver-backed lance-shaped leaves. It flowers all through the winter and spring, whether in bush or garden. The brilliance of its flowers is well captured on the cover of this issue.

Endemic though it is, as well as decorative, hardy, free-flowering, covered in late winter and spring with dazzling white flowers with centres that change from yellow to red, there is no need to write about *Thryptomene calycina*, it is too well known and widely grown. Also well known but not so often cultivated is the little Snow Myrtle (*Calytrix alpestris*), one of the daintiest of small shrubs with tiny spreading rod-shaped leaves and starry white flowers and red buds. It is a smaller plant, 60 to 90 cm high in cultivation though sometimes twice as tall amongst rocks in the Grampians.

Lower-growing even than Snow Myrtle, is the brilliant Downy Star-bush (*Asterolasia phebaloides*) with broad golden flowers amongst its woolly leaves. Related to *Phebalium*, but with shorter stamens, Downy Star-bush has much larger flowers than any Victorian *Phebalium*, as big as good forms of the northern *P. nottii*.

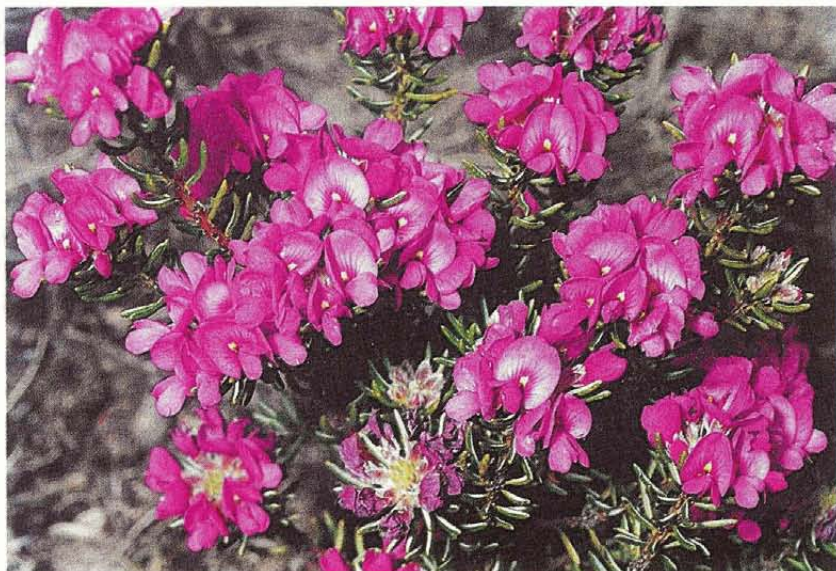
Ground covers

From climbers and trees, through large and small shrubs we have come near to the ground where Blue Tinsel Lily (*Calcectasia cyanea*) grows in small to large clumps of stiffly erect stems rarely more than a foot high, clothed with very narrow healthy leaves, bright green and pointed, dotted with crisp everlasting-textured flowers. The flowers, about an inch across, of 6 narrowly-pointed segments, are shining purple-blue, or sometimes paler blue. Tinsel Lily is occasionally cultivated but I have not yet seen a cultivated plant that was comparable to those which grow wild in the Valley of Mystery behind Mt. Rosea.

We have come nearer and nearer to the ground to finish with a delightful rosette plant which is endemic to the Grampians. It is the Grampians Trigger-plant (*Stylidium soboliferum*) which grows in damp peaty soil and damp rock crevices. The tufty rosettes crowd together, hen-and-chickens fashion, into cushions of soft, fleshy polished bright green leaves. Each narrow leaf of the rosette ends in a fine bristle. The leaves are from half to one inch long, shortest towards the centre of the cushiony rosette.

When I first saw *Stylidium soboliferum* growing wild, but not in flower, they reminded me of clusters of green sea-anemones. They still suggested crowded anemones to me when growing, as I grew them for years, in rosettes of varying sizes, pressed closely together, with flights of pale pink flowers above them. The petals are velvety crimson underneath, and the flowers are scattered on slender widely branched stalks. Stalks may be 3 to 8 inches high and the flowers are slightly smaller than those of the familiar Grass Trigger-plant (*S. graminifolium*).

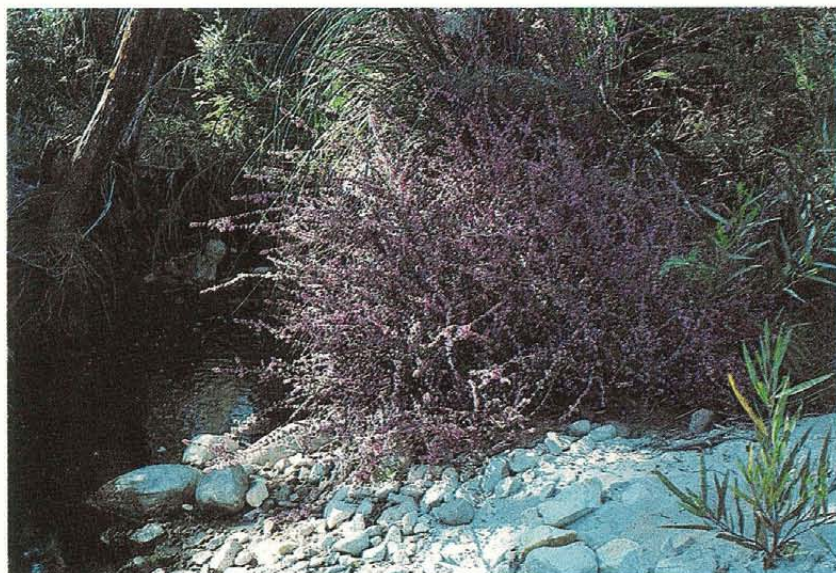
There are hundreds of other interesting and beautiful plants in this region widely and appropriately called Grampians Wonderland, but others will write of some of them, in this issue. ■



Pultenaea subalpina

Photography by B. A. Fuhrer

The beautiful rose colour of the clustered flowers on this rare Grampians endemic is well shown in this illustration. The plant is normally an erect shrub 1 m high and almost that across; the dense leaves are terete and about 10 mm long by 2 mm wide.



Bauera sessiliflora

Photography by J. Barker

In full flower, as seen above, this showy endemic is a feature of the moister parts of the Grampians particularly in damp sands bordering streams. It grows 1-3 m high and wide in natural conditions. The hairy opposite three-lobed leaves have no petioles and appear as a whorl of six leaflets. The mauve-pink stalkless flowers with black stamens cluster along the lithe stems in the leaf axils during spring and summer.



Calectasia cyanea

Photography by B. A. Fuhrer

The blue-purple colour of the six shiny paper-like petals of "blue tinsel-lily" contrasts with the six erect golden anthers in the terminal flowers on this spectacular bush. In the Grampians this low wiry bush which is most un-lily-like is fairly widespread in heathland and open forested areas that do not dry out completely.



Boronia latipinna

Photography by B. A. Fuhrer

The characteristic pink open petalled flowers and leathery pinnate leaves with broad pinnae of this Grampians endemic are well shown in the illustration above. *Boronia latipinna* grows naturally as an upright shrub 1-2.5 m high, usually in rocky places; in cultivation it needs excellent drainage with a cool moist root system. The flowers appear during winter and spring.

GRAMPIANS PLANTS FOR GARDENS

Rodger Elliot, Montrose, Victoria

The Grampians certainly provide a wealth of different species and a wide number of plant varieties from which to choose when looking for suitable plants to grow in cultivation — whether it be in a home garden or in large scale landscaping development. Of course many species have already been widely used in cultivation with great success, including *Melaleuca decussata* and *Grevillea dimorpha*, whilst others have unfortunately been neglected. Some species have proved troublesome and haven't really adapted to cultivation under varied conditions as yet. Those that spring to mind readily here are *Daviesia brevifolia*, *Styidium soboliferum* and *Prostanthera hirtula*.

Growing conditions

The following is very important if more Grampians plants are to be cultivated:

The majority of the Grampians flora is found growing in very well drained locations — whether it be on rocky outcrops, ridges and slopes, or sandy heathland and forested areas. Although there are many low lying and even swampy areas, in most of these places sand is the predominant component of the soils and therefore allows a constant movement of moisture through the soil. It is usually the opposite to this in garden soils that have a clay-loam topsoil with clay subsoil — which undoubtedly many readers will have.

Drainage therefore needs to be top priority for many Grampians plants to survive. This does not mean that everybody must import loads of sand. The use of gypsum or additives will help break up the soil or good drainage in clay soils can be gained by judicious raising of garden beds. In the raising of beds, it is dangerous to just place topsoil on the clay but better to loosen the clay with a pick then add some soil and mix as well as possible then add a further layer of local soil or imported soil. It is even better to also mix any imported soil with your local soil. Rotary hoeing is not recommended in heavy soils as it helps to break down the soil structure providing further drainage problems.

Another very important aspect as to the survival of plants, is whether or not they are planted in a situation that is similar to their natural habitat. Unfortunately many horrible yellow-foliaged plants of *Bauera sessiliflora* have resulted from folk simply not knowing they are shade and moisture lovers — so it pays to find out as much as possible regarding the likes and dislikes of our native plants. It would appear that some plants will grow better in the close proximity of other species — this is something that needs to be studied more thoroughly as it would certainly be of tremendous help in establishing plants in cultivation, regardless of from where they originate. Most Grampians plants are frost tolerant.

The following is a selection of the many species that are worthy of cultivation:

ACACIA

Acacia mitchellii — A variable species with soft fernlike grey-green foliage, usually having an open habit and growing 1-2.5 m high by 1-3 m wide. One of the main advantages of this wattle is its flowering time. The solitary cream to lemon yellow flower heads are displayed during spring and summer. It is most adaptable under garden conditions. Withstands pruning after flowering. Propagated by seed or cuttings.

ASTROLOMA

Astroloma conostephioides — This spectacular "Flame Heath" has unfortunately proved troublesome, needing extremely well drained conditions. It is also very difficult to propagate and is therefore never readily available. Slightly firm young growth makes the best cuttings.

BAECKEA

Baeckea crassifolia — This dainty foliaged species grows 30-60 cm by 30 cm and has very small succulent-like rounded leaves. The pale mauve open petalled tea-tree type flowers can cover the bush during mid-winter to mid-spring. It will grow in an open position but appreciates overhead shade and is very happy growing in and amongst other plants. Propagate from cuttings.

BANKSIA

Banksia marginata — This very hardy banksia is most under-rated and deserves to be planted much more. It is similar in size and size variation to *Banksia saxicola*. The flowers in late autumn through winter and into early spring are in varying shades of yellow. There are some excellent deep yellow forms in the Black Range. Propagation is from seed, or from cuttings if particular forms are required.

Banksia saxicola — A newly described species with large serrated juvenile leaves in groups of three around the stems. In its natural habitat it will grow only 1-2 m high under exposed conditions (such as at Mt. William), or up to 6 m high in more sheltered situations. Under garden conditions it will grow as a small tree either in full sun or semi-shade. The lemon-yellow flower cones 7-12 cm long by 5-7 cm wide are seen during summer and autumn. Propagate from stratified seed. Previously referred to as a form of *B. integrifolia*.

BAUERA

Bauera sessiliflora — An ideal plant for suburban situations where often there is only about 2 m between the house and fence and shaded for most of the day. It grows 1-3 m high and responds well to pruning — the prunings can then be used as cuttings which will root readily. During spring to early summer it is most attractive with many rosy purple to magenta open petalled flowers being produced along the stems in the leaf axils.

BILLARDIERA

Billardiera bignoniacea — The Grampians area is certainly a stronghold of this delicate "Orange Bell Climber". The flowers in spring and summer are followed by slightly hairy oblong greenish berries. It has a preference for semi-shade and moisture and is best grown where it will twine through other plants, often ascending to 2 m. Propagate from seed or cuttings. Previously known as *Marianthus bignoniaceus*.

Billardiera cymosa — This species will often virtually be of shrub form but if it comes in contact with other plants it will act as a climber with wiry branches and can be very dense growing to 2-3 m high. The tubular flowers with flared tips can be mauve pink to bluish during spring and early summer and are followed by oblong reddish fruits 10-20 m long. It will grow in sun or semi-shade and is adaptable to most soils. It responds well to pruning and can be propagated from seed or cuttings.

BORONIA

Boronia latipinna — This endemic species of 1-2.5 m high with open petalled pink flowers during winter to spring has proved difficult under cultivation. It needs excellent drainage with a cool, moist root system. Prune after flowering and propagate from cuttings.

Boronia nana var. *pubescens* — This is a small, usually dense plant — prostrate to 30 cm high. Has slightly hairy pinnate leaves. The flowers in spring vary from white to bright pink. This species appreciates growing



Billardiera bignoniacea

Photography by J. B. Fanning

Formerly known as *Marianthus bignoniaceus* the "Orange Bell-climber" is a dainty, ornamental, twining climber for moist shady situations. Its prominent orange and green bell-like flowers (shown above) in Spring and Summer make it an attractive garden subject. The flowers are more readily seen because the alternate pubescent (hairy) leaves are rather widely spaced along the wiry stems.



Grevillea alpina

Photography by B. A. Fuhrer

Although *Grevillea alpina* is widely distributed through the mountains of Victoria and Southern N.S.W., and has a similarly wide range of form and flower colour, the Grampians form must be the best of all in the wild and in cultivation. The clear red and yellow two-toned flowers seem bright orange from a distance.



Grevillea confertifolia

Photography by B. A. Fuhrer

The "Grampians *Grevillea*" exists in three forms. The most commonly grown prostrate form pictured here forms a dense cover 20-50 cm high and 1-3 m in diameter; it is an ideal rockery or ground cover plant for a well-drained but moist, sunny position. Another form similar but more upright grows to 1.5m high. All forms display dense terminal raspberry-like clusters of wine-red flowers during Spring.

beneath other plants. It does best where it is not too dry. Propagate from cuttings.

Boronia pilosa — The "Hairy Boronia" grows 20-50 cm tall with pale to deep pink four-petalled flowers being produced along the ends of the branches in spring to early summer. It is a Boronia that does not seem to be long lived in cultivation but is very happy growing in slightly moist soils amongst other plants and boulders which will give it a shaded root system. Pruning after flowering is recommended and propagation is from cuttings.

There are natural hybrids between *Boronia latipinna* and *B. pilosa* which are most variable. Whether these may prove more reliable as garden specimens is worth investigation.

CALECTASIA

Calectasia cyanea — Although slow growing, this widely sought after species seems to adapt fairly well to cultivation providing it has a relatively well drained situation. It forms a low clump. The spectacular flowers are well displayed in spring. They are comprised of six shiny paper-like blue-purple petals with gold anthers. Propagation must be done by division as this plant is a monocotyledon and the success rate is often unfortunately low, therefore plants are not readily available from nurseries.

CALLISTEMON

Callistemon macropunctatus — Here is an ideal plant for the garden being very hardy and also spectacular when in flower. It grows as a not too dense shrub 2-3 m high by 2-4 m wide. The flower brushes are produced in late spring to summer and are up to 10 cm long being rosy red with golden anthers. It responds well to pruning after flowering, as it also does to summer watering and applications of a slow release fertiliser in autumn and again in spring, which can induce further flowering in autumn. Propagation is from seed or cuttings.

There is also in cultivation a form with small foliage tightly packed along the stem and a very deep red brush. To date it has proved to be a shy flowerer in southern Victoria but thrives north of the Dividing Range.

CALYTRIX

The three species listed are all similar with clusters of white to pink five-petalled starry flowers produced in spring. There is often difficulty in separating *C. sullivanii* and *C. tetragona*, but all are worthy of cultivation and very adaptable to most soils. Pruning after flowering is beneficial. All are easily propagated from cuttings.

Calytrix alpestris — Certainly appreciates a moist semi-shaded or morning sun location. Grows to approximately 2 m high by 2-3 m wide. A very delicate species.

Calytrix sullivanii — Will withstand a drier situation, in full sun or semi-shade. It is usually upright, reaching 1-3 m high.

Calytrix tetragona — Will grow well in either moist or dryish situations and in full sun or semi-shade. One way (but not foolproof) to recognise this species: the calyx lobes below the flower are tipped with a long bristle. When the petals drop these can be seen easily, as the calyx becomes brown to purple and adds a decorative feature to this species.

CASUARINA

Casuarina muellerana — A light foliated species, greyish-green in colour and usually with a rounded habit of growth. Grows to 1-2 m high by a width of 2-3 m. This is an attractive shrub, quite at home in drier soils when the root system is established. Propagate from seeds.

COMESPERMA

Comesperma volubile — The "Love Creeper" is rare in cultivation having been sadly neglected by propagators — perhaps due to its leafless appearance. It has proved troublesome from cuttings but some growers have

been successful. A shade lover, either full to semi-shade, but where it will receive plenty of light. The small mauve to blue flowers are in racemes at the ends of branchlets and provide splashes of colour during spring and early summer.

CORREA

Correa aemula x *reflexa* — This natural hybrid is most variable, showing extremes from one parent to the other. There are some delicate pink flowered forms that are most worthy of cultivation. The plant will grow to 1 m by 2 m wide. It has a preference for semi-shaded but not too dry situations. Propagate from cuttings.

Correa lawrenciana — On Mt. William this dense bush grows to 2 m high by 2-3 m wide, however it can be expected to grow taller under cultivation which is usual for most species from this area of high elevation. It has a preference for a cool root system and would be happy in a sunny or semi-shaded situation. Yellow-green bells are produced in profusion in autumn and winter. There is also a form with reddish flowers but this is rare. Propagate from cuttings.

Correa reflexa — This species is well known in cultivation and could almost be described as a "must" for any garden. In the Grampians, as in other areas in which it is widespread, *Correa reflexa* is certainly most variable, with some plants 30 cm tall and others up to 2 m. Flowers may be seen almost throughout the year on the various forms, with the colour of the bells varying through many shades of red tipped with green, or purely red to pink or shades in between. It is fully adaptable to all but wet heavy soils, with forms from the forested areas preferring overhead shade and those from the drier, warmer areas fairly resistant to a sunny location. Light tip pruning will provide a compact bush if needed. Propagate from cuttings.

CYPHANTHERA

Cyphanthera anthocercidea — Not common in the Grampians this plant can be seen in the Mt. Zero area. It is an upright, light-foliaged plant and the dark green lanceolate leaves are smooth and when crushed emit a strong odour. The white tubular flowers are acutely lobed and the inside streaked with purple. During spring they are produced in large quantity. Has a preference for a semi-shaded situation and slightly moist soil. Will withstand regular pruning to maintain a bushy habit of growth if required. Propagate from cuttings. Previously known as *Anthocercis frondosa*.

DAVIESIA

Daviesia brevifolia — The delicate apricot to wine red pea flowers of this plant are shown en masse during spring. It is generally a problem species as far as long life in gardens is concerned. It needs excellent drainage and likes light overhead shade. To promote vigorous growth which is often seen in the bush after autumn rains, harsh pruning after flowering could be beneficial. Propagation is usually easy from seed but cuttings of firm new growth can be used.

DILLWYNIA

Dillwynia hispida — As with a lot of our Australian pea plants, this is a neglected species which is proving adaptable in cultivation. It is probably best in a light-shaded, well-drained situation where it will grow around 30 cm high by 60 cm wide. Orange-red to dark crimson broad pea flowers are shown to advantage beyond the foliage in spring. Light pruning is beneficial. Propagate from cuttings or seed.

Dillwynia sericea — This upright plant grows 60 cm to 1.5 m high with broad brilliant apricot to orange pea flowers arranged in spikes during spring. A very ornamental species. It is adaptable, preferring semi-shade and responds to pruning. Use the prunings as cuttings which strike readily.

Continued on page 301



Calytrix alpestris

Photography by B. A. Fuhrer

The "Snow Myrtle" is an elegant shrub 1 to 2 m high with slender branches sometimes drooping. The short (5 mm) fine aromatic leaves are arranged at right angles to the stem. The clusters of starry white flowers and pink buds which form at the branchlet tips in spring and summer are well illustrated here.

DODONAEA

Dodonaea cuneata — A hardy plant for sun or shade, growing to 1-2 m high. The flowers in winter and spring are minute but are followed by eye-catching shiny hop-like fruits which are red to deep brown-red. Propagate from cuttings.

Dodonaea procumbens — A low spreading bush, often prostrate, with many applications in cultivation. It would be very useful on roadside plantings, especially in low lying areas, and is useful in combating soil erosion. It will grow in both sun and shade, giving good coverage and is easily propagated from cuttings.

EPACRIS

Epacris impressa var. *grandiflora* — This has not been tried to a large extent in cultivation, although many native gardens have been enhanced by the addition of *Epacris impressa*. This species, endemic to the Grampians, prefers a well drained semi-shaded location but not too dry. Pruning is beneficial and propagation is from cuttings. Double-flowered forms of this variety are in cultivation.

ERIOSTEMON

Eriostemon angustifolius ssp. *montanus* — The warty small succulent leaves of this plant have a distinctive scent when crushed. The flower buds are varying shades of pink and the flowers open to five white petals in late winter and spring. It has proved adaptable in well drained situations, preferring a cool, slightly moist, root system. Responds well to light pruning. Propagate from cuttings. Previously included under *E. difformis*.

EUCALYPTUS

Being a forest region there are several different species of eucalyptus growing here, but none of these are grown widely in home and community gardens as species and forms from other areas would, in most cases, appear to be more suitable to these needs. However, there are some decorative pendulous foliage forms of *E. leucoxylon* that show potential for cultivation.

EUTAXIA

Eutaxia microphylla — A prostrate plant spreading approx. 1 m, bearing a profusion of small yellow with red pea flowers in spring. Has narrow sometimes prickly leaves that can be glaucous. It is an adaptable plant with a preference for heavier soil types, growing in sun or semi-shade. It is easily propagated from cuttings.

GAHNIA

Gahnia sieberana — This "Red Fruit Saw Sedge" forms a large clump 2-3 m high by 1-2 m wide with brown and cream flower heads, turning black to contrast with the small bright red shiny nuts. An ideal plant for near a pool, especially if planted in a group if space allows. Very hardy and adapts to most types of soil.

GOMPHOLOBIUM

Gompholobium ecostatum — A prostrate to low plant with relatively large apricot to orange-red or sometimes yellow pea flowers in spring. The stems and leaflets are usually hairy. This gem needs a very well drained situation, liking light overhead shade. Propagate from seed or cuttings.

GOODENIA

Goodenia geniculata — We should plant more Goodenias in masses as they are very good value with a long flowering period and are easily propagated by division or cuttings. Another excellent Grampians species is *G. humilis*, it bears bright yellow flowers on branched stems above the tufted foliage during spring and summer.

GREVILLEA

All the Grampians Grevilleas are of excellent horticultural value. There are many forms from differing areas and most have proved adaptable to cultivation. The outstanding species for garden use are mentioned here; the article on page 312 gives a complete survey.

Grevillea alpina — This species is most variable and probably the most outstanding in the Grampians because of combinations of red and yellow in the flowers. Forms which are being grown include the tall form from around Mt. Zero (similar to one which grows on the Rosea track). This upright plant can be 2-3 m high by 1-2 m wide and good specimens have relatively large dense clusters of flowers in winter and spring. Throughout the Grampians there is a prostrate form with larger leaves than usual which produces large red and yellow flowers. This species has been found to sucker in cultivation. There is also an excellent low shrubby form 60 cm to 1 m, from the northern end of the Victoria Valley Road and on Mt. William Road. This form has fairly dense foliage and flowers are distributed over the bush. Propagation is by cuttings. This species will grow in full sun to semi-shade, needs well-drained soils and can be pruned. Tip pruning on young plants will produce a dense bush if required.

Grevillea aquifolium — Another variable Grevillea, both in growth habit and in its holly-like foliage. There are prostrate forms from Lake Wartook and the Serra Road areas which have shiny green leaves and plants spread 2-3 m wide. The toothbrush flowers in spring and summer open a lime green and then darken to red. This is an ideal form for embankments or as a living mulch.

From Mt. Zero and other areas, there is the woolly foliated form which looks grey at a distance, apart from the new growth which is reddish and very attractive. The flowers of this form usually begin as green and red, then become deep red as they age.

There is a most floriferous pink flowered form from near Mt. Sturgeon, usually grown as a low compact spreading shrub 60 cm to 2-3 m.

Grevillea aquifolium can have flowers most of the year and honey-eating birds are constant visitors to flowering plants. It is a most adaptable plant withstanding extended periods of dryness or wetness but it is best grown in fairly well drained soils. It is happy in full sun or shade, but if in full shade it needs to receive plenty of natural light. Usually propagated from cuttings, although seed can be used if available.

Grevillea confertifolia — There are three distinct forms of this Grevillea which is endemic to the Grampians. The tallest reaches about 1.5 m high whilst there are two low growing forms. The one from the Major Mitchell Plateau has paler coloured flowers. All have clusters of wine coloured flowers in spring. The species has been in cultivation for many years. It forms a dense cover and will withstand pruning. It is easily propagated from cuttings and prefers a moist position with a cool root system. Happy in full sun to semi-shade.

Grevillea dimorpha — This species is very adaptable and is common in cultivation, producing an abundance of bright red flowers along the stems during winter and spring. It is variable in foliage, having leaves 2 mm wide on some plants and up to 30 mm wide on others. The fine-foliated plants generally form a dense low bush 30-60 cm high by 1-1.5 m wide in cultivation; whilst the broader foliated forms can grow to 2.5 m high with a similar width. Will grow in most well-drained soils and has a preference for light overhead shade. Propagate from cuttings.

Grevillea lavandulacea — This strikingly beautiful species is represented in the Grampians by at least two forms. The Black Range form is an upright, angular plant 2 m by 1-2 m, whilst the Billywing form has pointed

but softer greyish foliage with a more dense spreading habit of growth, growing to approximately 30 cm-1 m high by 1-2 m wide. Both forms have brilliant translucent pink-red flowers which are produced in lateral clusters during winter and spring.

In the Black Range there are natural hybrid swarms between *G. alpina* and *G. lavandulacea*, many are worthy of cultivation.

All forms of *G. lavandulacea* prefer a sunny, well-drained position and have proved very adaptable. They withstand pruning and very hard cutting back can induce suckering. Propagate from cuttings.

Grevillea parviflora — This is not a spectacular *Grevillea*, but the pink flowered form that grows on the Hall's Gap to Mt. Zero Road is a pleasing plant. It is a fine-leaved, open-foliaged plant and flowers in spring. White flowered forms are also known. Propagate from cuttings.

HAKEA

Hakea nodosa — Here is a useful plant with cream to yellow flowers clustered along the stems in autumn and winter which will grow in just about any spot you choose — including very wet spots. It reaches a height of approximately 1-2.5 m and the blue-green leaved form with yellow stems is a good form for gardens. Propagate from seed or cuttings.

HELICHRYSUM

There are a number of species native to the Grampians including the widely grown *H. apiculatum*, *H. baxteri* and *H. bracteatum*.

Helichrysum blandowskianum — Certainly a neglected plant and has much to offer. It is a perennial of 10-30 cm high and the white to pink buds open to white terminal clusters of flowers in late spring to summer. It needs good drainage, e.g. sandy soils, and prefers sun or light shade. Propagation is from seed or cuttings.

HIBBERTIA

Several species from the Grampians have excellent horticultural potential but to date they have proved troublesome as they seem prone to damage by *Phytophthora cinnamomi*. There is the endemic prostrate species — *H. humifusa* which needs to be widely grown but it is, to date, not readily available commercially.

Hibbertia virgata — Deserves to be planted more widely. The narrow leaves are grouped along the stems. It must have good drainage and will grow in full sun to semi-shade. Pruning after the display of yellow flowers in spring is beneficial. Propagate from cuttings. Plants will grow 30-60 cm high by same width.

HOWITTIA

Howittia trilocularis — "Blue Howittia" — An upright plant of 1-3 m high, ideal for sheltered moist locations such as the east or south side of a house. The violet to lavender hibiscus-like flowers of approximately 2 cm diameter are produced in spring and summer. Propagate from seed or cuttings.

IXODIA

Ixodia achillioides — This is usually disregarded as a garden plant because of its straggly bush habit but under cultivation, like so many other species, it will grow to an attractive shiny bright green foliaged plant. Hard pruning after flowering is necessary. Dense heads of white paper-like daisies are produced during spring and summer. They have excellent everlasting qualities and are ideal for floral art work.

KENNEDIA

Kennedia prostrata — The prostrate "Running Postman" with its bright red pea flowers is ideal for garden planting and is used widely.

KUNZEA

Kunzea parvifolia — To gain maximum benefit from this species you need to have five to ten plants in an informal drift because that is how it

grows naturally in areas containing many plants together, thus providing a spectacular sight when in flower. Although not possible always in home gardens, this type of planting should be considered for any larger areas. Plants grow to approximately 1.5 m high with pink to violet clusters of flowers forming pom-pom like heads in spring to early summer. A most adaptable species with a preference for a moist spot. Propagate from seed or cuttings.

LASIOPETALUM

Lasiopetalum macrophyllum — This shrub of 2-3 m high is worth growing because of its foliage. Leaves are dull green above and cream below, with rusty hairs. The rusty new growth is eye-catching. It is a useful screening shrub and is best grown in semi-shaded situations. It withstands light pruning. Propagate from seed or cuttings. Previously known as *L. dasyphyllum*.

LEPTOSPERMUM

There are five species of "Tea Tree" native to the Grampians and although not covered in detail here, they can all be very useful as well as attractive in cultivation.

MELALEUCA

Melaleuca decussata, *M. gibbosa*, *M. squarrosa* and *M. squamea* will all be found in the Grampians growing in some of the moist or low lying areas and are very tolerant of similar conditions under cultivation. Possibly the most widely grown is *M. decussata* with its attractive mauve brushes in spring and summer. All these species may be grown from seed which is usually readily obtainable.

MICROMYRTUS

Micromyrtus ciliata — This species is indeed one of the gems of the area and is widely cultivated. It is a low plant (10-50 cm high) with small aromatic leaves and in spring small pink buds open to white flowers which deepen to red with age. It is most adaptable but needs good drainage with a preference for a not too dry situation. Will grow in full sun or semi-shade. Propagate from cuttings.

OLEARIA

Olearia ciliata — Of the several Grampians "Daisy Bushes" this species producing bright blue-purple single flowers of 2-3 cm diameter on stems 10-25 cm long during late spring and early summer, is a "must". An ideal plant to put amongst other taller plants where it has a shaded root system. It reaches 20-60 cm tall and will grow in full sun or semi-shade, needing to be relatively well drained. Propagate from cuttings.

PATERSONIA

Patersonia occidentalis — This will need little introduction to many readers. A very useful tufted perennial with attractive purple-blue three-petalled flowers in spring to mid-summer. Ideal for a moist spot. Propagate from seed or root division. Previously known as *P. longiscapa*.

PHEBALIUM

Phebalium bilobum — A spreading plant of 1 m high with starry white flowers in spring. There is an excellent form with bright red buds which should be grown. It is happy in a well-drained situation in sun or semi-shade but seems to need a cool root system. Propagate from cuttings which can be slow to form roots.

PROSTANTHERA

Prostanthera lasianthos var. *subcoriacea* — All the "Mint Bushes" of the Grampians are suitable for garden cultivation but this species is one which is possibly not grown as widely as it deserves at present. Under garden conditions it usually grows as a shrub of 2 m x 2 m producing, in spring and summer, masses of white flowers with purple spots on the throat. There are forms from Mt. William with definite pink tonings. It will grow in full sun to semi-shade, preferring a moist, well-drained soil.

PULTENAEA

Pultenaea is well represented in the Grampians but is a badly neglected group of plants that have much to offer to cultivation.

Pultenaea costata — Grows approximately 1 m high by 2 m wide with dense terminal heads of orange-yellow pea flowers during spring and early summer. This species is not well known in cultivation. It will need a well-drained location with a preference for semi-shade. Propagate from cuttings.

Pultenaea graveolens — This is on the list of endangered flora. It grows 1-1.5 m high by 0.5 m to 1 m wide, having minute smooth green spicy-scented foliage with the upper parts of the branches producing a weeping effect. The small yellow and brown flowers are produced in spring. Prefers a well-drained, semi-shaded situation. Propagate from cuttings.

Pultenaea humilis — A small plant 30-40 cm high with orange and yellow to orange and brown flowers in dense terminal heads in spring and summer. A form with greyish foliage is most attractive. A sunny to semi-shaded well-drained position is preferred but not too dry. Propagate from cuttings.

Pultenaea mollis — Grows 2-3 m high producing terminal clusters of yellow and brownish-red fragrant pea flowers in mid-spring to early summer. An ideal plant for a semi-shaded, well-drained area. With light pruning it can be used most successfully as a screening plant. Propagate from cuttings.

Pultenaea pedunculata — Possibly the best known of this genus, being an extremely useful mat plant for many garden situations. Both yellow with red and orange with red flowered forms occur in the Grampians.

Pultenaea scabra — Certainly produces a massed display of orange-yellow pea flowers in spring. It grows 1-2 m high by 0.5 m to 1.5 m wide. It likes semi-shade with good drainage, but not too dry. Propagate from cuttings.

RESTIO

Restio tetraphyllus — With a growing interest in the use of native water plants and poolside plants, this graceful species will in time be widely planted. It is tussock forming to a height of 1-2 m with vivid green rush-like stems and tassels of flowers in spring and summer, usually brown or reddish. Readily propagated from seed but can also be grown from root division.

SPRENGELIA

Sprengelia incarnata — This upright plant of 1 m-1.5 m high has dense terminal spikes of five-petalled star-like pale pink flowers in late spring to early summer. It needs moisture but must be well drained. Best suited to a situation with partial or full sun. It is unfortunately prone to *Phytophthora cinnamomi* attack and has proved difficult to maintain unless grown on sandy soils. Propagate from cuttings which are usually slow to form roots.

STYLIDIUM

Stylidium graminifolium — "Trigger Plants" are sought after for cultivation and this species is a good one with which to start. It forms a basal tuft with the flower stems up to 50-60 cm tall, carrying many small white to pink flowers in spring to summer. Propagate by seed or division.

Stylidium soboliferum — This is endemic and forms a small but dense basal rosette of leaves. The small white to pink flowers are produced on short branched stems. It is not easy to establish but is worth persevering with. Will grow in sun or semi-shade. Probably best suited as a container plant. Propagate from seed or division.

TETRATHECA

Tetratheca ciliata — Forms a clump around 30 cm high bearing mauve-pink flowers during spring to early summer. It is a plant that likes to grow with the protection from other plants, having a preference for overhead shade.

Soil must be well drained but not dry. Hard pruning after flowering will produce a dense clump if required. White flowered forms are also in cultivation. Propagate from cuttings.

THRYPTOMENE

Thryptomene calycina — Best grown in deep sand or on very well-drained loam soils. It will grow in full sun or semi-shade. An excellent cut flower with long lasting qualities. Propagate from cuttings. Plants reach a height of 2-3 m and the masses of small white flowers in autumn to spring deepen with age to dull red.

VILLARSIA

Villarsia reniformis — A most attractive water plant producing five-petalled, bearded, open yellow flowers in late spring to early summer on branched stems up to 1 m high. A hardy plant, propagated by seed or root cuttings.

WESTRINGIA

Westringia glabra var. *williamsonii* — An uncommon plant of the northern Grampians and Black Range, adaptable to cultivation. It has narrow dark green foliage and produces lilac flowers in terminal clusters during spring. It grows 1-2 m high by 1 m wide, having a preference for a moist well-drained and semi-shaded position. Propagate from cuttings.

There are many species in addition to this list which are worthy of cultivation and undoubtedly many will be covered in other articles in this issue, so by combining all the information given we should be able to grow a large number of Grampians plants.

S.G.A.P. members are already growing a large number of Grampians plants and propagation material can, therefore, in most cases, be obtained WITHOUT damage to this magnificent mountain area. Should you find it impossible to obtain material elsewhere, a permit allowing limited collection may be obtained from the Victorian Minister of Forests. All persons, particularly S.G.A.P. members, should ensure that any such collection is not done right on a roadside and that every effort is made to ensure that no damage is done to the parent plant. Taking cuttings, digging or pulling up of plants is illegal without a permit.

By all means let us be keen to introduce these ornamental species of Grampians flora to our gardens, but at the same time be equally keen to conserve this "Wonderland" of nature. There are many plants and animals that have either their most western or most eastern occurrence in the Grampians. Therefore it is a very important region scientifically, and we must do our utmost to ensure that the Grampians are managed in a manner that is sensitive to the natural environment. ■

CORRECTION

In the December 1981 issue of Australian Plants (Issue No. 89) in the article on *Callistemon* reprinted from Volume 2 of "Encyclopaedia of Australian Plants" by Rodger Elliot and David Jones there was an error in the information provided on *Callistemon citrinus* 'Australflora Firebrand'. The correct description was given in Australian Plants 11, 31 (Dec. 1980). 'Australflora Firebrand' is a prostrate form of *C. citrinus* which grows about 60 cm high, with occasional arching branches to 90 cm, and spreads 2 to 3 m. It has prolific red flower spikes and silvery-pink new growth after flowering.

WATTLES OF THE GRAMPIANS

Fred Rogers, Horsham, Victoria

There are nearly 700 species of wattle in Australia with another 200 odd species in countries overseas. It was from the plants in the overseas countries that the name acacia, from the Greek "Akakia" meaning sharp, was given and was probably in reference to the sharp spines on many of these plants.

The name wattle seems to have been derived from the Anglo-Saxon word which meant weaving. The name wattle was used in Australia to refer to the houses made from sticks held between uprights each end and then the cracks and spaces were filled with mud — and so our early pioneer homes of wattle and daub developed.

In the Grampians, the following species occur naturally:

Acacia acinacea

Gold-dust Wattle is often a sprawling shrub about 1 m high but may be a taller erect shrub to 2 to 3 m. The small, 0.4 to 2.5 cm long and 2 to 10 mm broad phyllodes, are slightly narrowed towards each end and curved towards one side so that the apex is "off-centre". Bright yellow flowers are in balls on solitary peduncles. The flowers usually appear during August to October.

Acacia aculeatissima

Thin-leaf Wattle is usually a small scrambling plant less than 60 cm high. The thin phyllodes are more or less quadrangular and usually pointing at odd angles, including down along the stem. The yellow flowers are on single peduncles and appear during August to October.

Acacia brownii

Heath Wattle has been found along the road leading from Hall's Gap to Rose's Gap Road. It is a small open shrub about 60 cm high with slender spreading branches. The stiff narrow phyllodes do not broaden at the point of junction with the stem and are quite sharply pointed. The golden yellow ball flowers are borne singly and on peduncles about as long or slightly longer than the phyllodes. The main flowers appear during September.

Acacia genistifolia

Spreading Wattle is a loose spreading shrub from 1 to 2 m high. The phyllodes are very stiff, narrow and sharply pointed. The central nerve of the phyllode is slightly raised. The pale yellow ball flower-heads are on long peduncles, often two from the axil. Some plants flower as early as March while others do not flower until spring. Perhaps there are two species involved.

Acacia gunnii

Ploughshare Wattle is a small shrub, often a little more than 30 cm high. The phyllodes, which are broad at the base, have a shoulder on the top edge close to the stem. The flower-heads are on slender peduncles which are solitary in the leaf axils. It flowers during spring. Plants are never very plentiful but odd plants may be found throughout the Grampians.

Acacia longifolia

Sallow Wattle is a very suitable common name for this widespread plant. It forms a large erect shrub or small tree to about 7 m in height. The phyllodes are a dull green, narrowly elliptical and narrowing at each end. They vary in length from 5 to 16 cm and in width from 7 to 35 mm. Two or three nerves are prominent in the phyllode and net veins are conspicuous. The bright

yellow dense paired spikes of flowers appear during August to early October. In some areas it forms dense thickets. A fine display may be seen along portion of Rose's Gap Road.

Acacia mearnsii

Late Black Wattle is a tree from about 7 to 10 m or more in height. The leaves are usually minutely hairy and if the stem holding the flowers (rachis) is examined it will be found that a number of glands are irregularly spaced along it. During November and December the pale yellow flower heads appear in terminal panicles or short racemes. Older trees are often badly attacked by borer and wattle goat moth.

Acacia mitchellii

Mitchell's Wattle may be of several thin, erect stems or in some areas it forms a rather dense bush to nearly 2 m in height. The true leaves are rather small and the pale yellow ball flowers appear during spring and summer. Often there are two bursts of flowering and it is not unusual to find some seed-pods on the bush at the same time as it is in flower.

Acacia mucronata

Narrow-leaf Wattle is a very conspicuous species around Hall's Gap and Silver Band Road area during August and September when the plants are in blossom. It forms a graceful shrub 2 to 3 m high, but occasionally may reach a small tree size of nearly 10 m. The long, narrow phyllodes 3 to 20 cm long and 0.5 to 10 mm wide are quite distinctive. The pale yellow flowers are in loose spikes.

Acacia myrtifolia

Myrtle Wattle is a small shrub from 1 to 3 m high, the stems may be reddish. Phyllodes on forms in the Grampians are much narrower than those which occur in other parts of Victoria. The phyllodes are slightly curved 2 to 8 cm long and 7 to 25 mm wide, with a single nerve and often a prominent yellow or greenish-yellow margin and a conspicuous gland near the base. The bright yellow (often paler in areas away from the Grampians) flowers are in groups of 2 to 4 occasionally 5, per ball and appear during August to October.

Acacia obliquinervia

Mountain Hickory Wattle is a shrub or small tree 2 to 10 m high. It is quite common on Mt. William, Mt. Difficult Range, and Golton Gorge. The dark green phyllodes are up to 17 cm long and 5 cm wide. The phyllodes bear the single nerve always near the top edge. The bright yellow flowers which appear during August to November are in racemes.

Acacia oxycedrus

Spike Wattle is a stiff erect shrub up to 6 m or slightly higher. Phyllodes are very rigid, sharply pointed and may at times appear to be in a false whorl which may make it at first glance look like Prickly Moses, from which species it may be readily separated by the prominent stipules at the base of the phyllodes. Flowering time is during the period June to November. Hybrids of this species and several other species may occur and interest can be created in trying to locate some of these. It is suspected that *A. oxycedrus*, *A. longifolia* and *A. mucronata* are the three main species involved.

Acacia paradoxa

Hedge Wattle is a dense spreading shrub from 2 to 4 m in height. Phyllodes are roughly oblong and usually wavy edged. There is a sharp stiff stipule at the base of the phyllode. Large deep yellow flower-heads appear during August to October.

Acacia pycnantha

Golden Wattle is an erect and spreading shrub or small tree usually with in the range 3 to 10 m in height. Phyllodes vary but usually are a shiny green, broadest above the centre and from 5 to 19 cm long and 4 to 50 mm wide, with a prominent nerve and a gland near the base of the upper edge. Flowers are in balls, a deep golden in colour and appear during August and September. Plants may line the roadsides in the northern Grampians.

Acacia retinodes

Wirilda is a large shrub or small tree 3 to 7 m high. Phyllodes are up to 20 cm long and 3 to 15 mm wide. They usually end in a fine point and taper towards both ends, but in some areas are broader towards the tip. The pale yellow flowers appear in racemes throughout much of the year but particularly during December to February. A fine stand is along the Pomonal Road as it approaches Hall's Gap.

Acacia rupicola

Rock Wattle is a stiff shrub from 1 to 2 m high. Phyllodes are shaped like a very narrow triangle with the base broadened against the stem and the other end ending in a sharp point. The flower-heads are on slender peduncles which are solitary in the leaf axils. The flowering period is usually during November and December.

Acacia stricta

Hop Wattle is a stiff erect shrub 2 to 5 m high. Phyllodes are straight, stiff and usually 4 to 12 cm long and 3 to 15 mm wide. Phyllodes have one prominent nerve and the other parts of the phyllodes are covered with numerous small nerves. Flower-heads are on peduncles which occur singly in the leaf axils. Flowering time is August to early October.

Acacia spinescens

Spiny Wattle is a very distinctive species as the phyllodes are absent and the plant consists of a number of erect branches which are coarsely grooved and usually ending in a rigid and sharp point. It occurs throughout the mallee areas of Victoria and may be found in the northern Grampians near Mt. Zero and along Rose's Gap Road, but is never very common. Bright yellow, almost sessile ball flowers appear in clusters along the branches during August to October. When the pods are developing the plant appears as if it is growing some sort of leaf.

Acacia suaveolens

Sweet Wattle is of restricted occurrence with possibly the better known plants being found near the junction of Rose's Creek Road and Phillip Island track. It is an open shrub from 1 to 2 m high with thick dull bluish-green phyllodes. The flower-heads are pale, fragrant and in short clusters or short racemes. Flowering time is during winter and during spring the flat pods become quite noticeable.

Acacia verticillata

Prickly Moses is an open shrub from 2 to 4 m high here and often found growing in damp areas or areas which retain water for some time during winter. The phyllodes which are in whorls are sharply pointed. It can easily be separated from *A. oxycedrus* because there are no stipules at the base of the phyllode. Flowers are in small spikes and appear during September and October. ■

PEA FLOWERS OF THE GRAMPIANS

Ross Macdonald, Croydon, Victoria

Spring brings the peas into flower and in the Grampians it does so with a great abundance. Among the 70 species in the area are seven which are endemic to the Grampians. They are:

Bossiaea rosmarinifolia

This plant resembles *B. cinerea* that is also found in the Grampians, but the leaves are narrow, linear, glabrous, and up to 20 mm long on a little stalk. Flowers are yellow and red.

Dillwynia oreodoxa

This shrub of 1-3 m comes from the central areas (e.g. Sundial). The leaves are about 2 cm long and a little twisted, lengthwise. The flowers are orange and grouped to form a loose raceme of stalked blooms. The calyx is smooth and tapering.

Pultenaea costata

This plant has leaves from 0.5-1 cm long which are quite prickly pointed and show five ribs on the undersurface. They are smooth, ovate to lanceolate, with a more or less recurved margin.

The flowers have no stalk and occur in a dense head. The standard (the upright petal) is a little longer than the calyx lobe. The bracts and bracteoles are ciliate and are almost as long as the calyx. It is found in the central area of the Grampians — e.g. Sundial, Rose's Creek Road and the Halls Gap-Zumsteins Road.

Pultenaea maidenii

A shrub of about 0.7-1 m from the southern areas. The leaves are oblong and almost cuneate, 10 mm x 2 mm, and pale underneath.

Pultenaea patellifolia

This shrub is found only near Mt. Byron in the Black Range and grows into a rather tall bush. The leaves end in a small point and are almost round, 2-3 mm diameter. The flowers occur in terminal clusters on a stalk up to 5 mm long. The bracteoles are round, sticky, and about half as long as the smooth calyx.

Pultenaea subalpina

An erect shrub to about 1 metre in the bush, but growing a little taller in cultivation. It comes only from the higher peaks of Mt. William, Mt. Rosea and the Major Mitchell Plateau. The stems and the calyx may be pubescent (hairy), the bracts are usually conspicuous and the stipules nearer the flowers may be enlarged. The flowers are pink or purplish, tucked in among the terminal leaves. The leaves are 10 mm x 2 mm, terete, but with a narrow channel above, blunt ended, quite dense, and smooth with irregular tubercles.

Pultenaea williamsoniana

A shrub from the northern areas. The leaves appear almost terete 0.5-1 cm long, and stand out perpendicular to the stem. The flowers are found at the end of the branches in groups of 2 or 4. The bracteoles are less than half as long as the calyx.

There are many other peas which grow in the Grampians. Some are widespread in Victoria; some are common on other sandy heathlands, and some are restricted to one or very few localities.

Sphaerolobium daviesioides is found only in Western Australia apart from the Grampians occurrence. It is postulated that in ages past the two areas were botanically joined.

Because many of the pea flowered plants that occur in other places as well as the Grampians were described in previous issues of this volume of Australian Plants they will not be described in this article, but are simply listed below. Readers are referred to page 47 (Issue No. 86) for a general classification of the pea flowers and to page 60 for a description of *Glycine* species. Issue 87 starting on page 95 covers *Bossiaea* and the related genera *Platylobium*, *Templetonia* and *Hovea*. Full details of the South-East Australian *Bossiaea* species are given on pages 106 to 126.

Pea flowered plants that occur in the Grampians:

Aotus ericoides.

Bossiaea cinerea, *B. prostrata*, *B. riparia*, *B. rosmarinifolia*.

Daviesia brevifolia, *D. latifolia*, *D. ulicifolia*, *D. virgata*.

Dillwynia cinerascens, *D. glaberrima*, *D. hispida*, *D. oreodoxa*, *D. sericea*.

Eutaxia microphylla.

Glycine clandestina, *G. latrobeana*.

Gompholobium ecostatum, *G. huegelii*.

Goodia medicaginea, *G. lotifolia*.

Hardenbergia violacea.

Hovea heterophylla, *H. longifolia*.

Indigofera australis.

Kennedia prostrata.

Lotus australis.

Phyllota pleurandroides.

Platylobium alternifolium, *P. formosum*, *P. obtusangulum*, *P. triangulare*.

Pultenaea acerosa, *P. benthamii*, *P. costata*, *P. d'altonii*, *P. daphnoides*, *P. dentata*, *P. graveolens*, *P. hibbertioides*, *P. hispidula* (2 forms), *P. humilis*, *P. juniperina*, *P. largiflorens*, *P. laxiflora*, *P. luehmanni*, *P. maidenii*, *P. mollis* (syn. *P. angustifolia*), *P. patellifolia*, *P. pedunculata*, *P. platyphylla*, *P. prostrata*, *P. retusa*, *P. scabra*, *P. stricta*, *P. subalpina*, *P. subumbellulata*, *P. tenuifolia*, *P. williamsoniana*.

Swainsona brachycarpa, *S. murrayana*, *S. procumbens*, *S. swainsonioides*.

Sphaerolobium daviesioides, *S. vimineum*.

Templetonia stenophylla.

Viminaria juncea.

In the garden

The *pultenaeas* are undoubtedly the feature of the peas in spring. Their abundance of bloom and attractive foliage form the basic bush colour of the lower storey. In the garden they all require some summer shade and a light pruning after flowering. Their longevity under garden conditions is still unknown but is at least several years. *Pultenaea subalpina* is difficult to keep growing but should be tried more in higher altitudes.

Propagation, both from seed and cuttings, is reliable.

There are three peas with a predominantly orange shade of flower colour which are outstanding:—

Dillwynia hispida has brilliant deep orange flowers.

Dillwynia sericea has a more subtle shade against the furry greyish leaves.

Daviesia brevifolia is an outstanding little shrub in the drier northern areas.

Leafless grey-green stems set off the peach-pink-orange flowers and the subsequent inflated light green triangular pods. It is propagated from seed and needs excellent drainage.

All peas add to the nitrogen balance of the soil. Plant as many as you can amongst your other shrubs. In the Grampians nature has done just this. ■

GREVILLEAS OF THE GRAMPIANS

Clive T. Judd and C. L. Wheller, Strathmore, Victoria

The genus *Grevillea* is widely distributed throughout all regions of Australia. The family has many widely variant forms and flower colours. The majority of flowers are showy and many are beautifully coloured making excellent garden subjects.

In Victoria the genus has twenty-five representatives; of these nine occur in the Grampians region. Of the two endemic to the area, *G. williamsonii* was last reported prior to a fire in 1897.

Since we are dealing chiefly with an alpine region it is obvious we will come across *G. alpina*, perhaps the most widespread highlands grevillea in Victoria. The best and most showy forms of *G. alpina* come from this region.

The holly-leaved Grevilleas, *G. aquifolium*, *G. ilicifolia*, *G. steigitziana*, *G. dryophylla*, *G. repens* and possibly *G. huegelii* are well represented here. Many variations of leaf-shape and growth habit occur at various localities, often grading into each other. *Grevillea aquifolium* is an extremely interesting example of the complex. J. H. Willis* called it 'Variable Prickly Grevillea' and it certainly is. Consider the range of forms. On Mt. William and at Miranatwa Gap we find a low to prostrate shrub with deeply incised leaves, then in the Rose's Gap and Mt. Zero areas we find the largest development — three to four metre shrubs with broad leaves.

J. H. Willis* has recorded an extreme form with deeply dissected leaves of narrow segments on Mt. Rosea and similar forms have been reported from Mt. William and Miranatwa Gap. Originally given a varietal status by Meissner (1856) it has since been ignored as it is thought to grade readily into surrounding types. Willis mentions another type which is almost of prostrate habit and with leaves varying from entire to few or many shallow toothed (near Wartook Reservoir and other places).

Variations of height and leaf-shape are such that to untrained eyes and even to some botanists many of these are unrecognised as the same species. However, from the gardener's point of view, these variations are a source of great satisfaction. The utilisation of form variations is quite distinct, ground covers are made with prostrate types and taller forms grade upwards into shelter, windbreak and screen plantings. No problems here!

We are indebted to J. H. Willis* for much of the information on which the following descriptions are based:

Grevillea ilicifolia var. *angustiloba* 'Holly Grevillea'. A group of prostrate plants with widely separated and narrow leaf segments (somewhat pinnate), which extends from the western Grampians to the South Australian border. An extreme form with needle-like pinnae is found on the western fringe of the Victoria Range. The Grampians area does not contain the typical form which inhabits the north-western desert parts of Victoria. The species has red, green or cream flowers.

Grevillea aquifolium. 'Variable Prickly Grevillea', is widespread throughout the Grampians and Western Victoria, perhaps the most widespread species in Victoria. Extremely variable forms range from low/prostrate plants to tall shrubs three to four metres high. Leaves vary from deeply lobed to merely toothed to entire and seem to grade through all forms almost imperceptibly. Flowers mostly red are large, nectar-laden and very attractive to birds.

Grevillea lavandulacea. 'Lavender Grevillea', the well-known grey-leaf plant of 1 m or so with magnificent flower displays of bright reds to pinks. In the Grampians this species is mainly confined to the Black and Victoria

Ranges. It seems most Victorian plants are the type called 'var. *sericea*' by Bentham, having closely rolled, almost terete leaves with silky hairs on both sides. The commonest (S.A.) form has softer, silkier appearance with more densely pubescent leaves. A very heavy-flowering small shrub, very attractive to birds and people. The most outstanding bright pinks and reds are available in this desirable shrub.

Grevillea williamsonii. 'Serra Grevillea', a very rare plant, endemic to this area. Probably extinct as the only known plant was destroyed by fire in 1897 and none have been sighted since! If you care to go looking it has small 1-2 cm x 4-6 mm, ovate-lanceolate to elliptic leaves, almost flat, felted beneath with short grey hairs. Flowers have a straight torus and are arranged in a one-sided raceme. It was found in 1893 on Picaninny Hill, between Mt. Abrupt and Mt. Sturgeon. Best of luck!

Grevillea rosmarinifolia. 'Rosemary Grevillea', another well-known garden subject with dark green pointed spiky leaves, some tightly rolled, some flat. A wide variation of flower colour is available from greeny-cream, through pink to scarlet. *G. rosmarinifolia* is a widespread species in Victorian alpine areas and some lowlands from the mid-west to the mid-east of the State, usually in dispersed localities and rarely in large communities. Many form variations and colours are found to match the habitat variation.

Grevillea parviflora. 'Small-flowered Grevillea', a fairly widespread Grevillea though not common or plentiful. A small shrub to 1 m with white to pinkish terminal, occasionally scented, flowers in masses. Fine needle-like leaves. Easy to grow and flowers well late summer to autumn.

Grevillea confertifolia. 'Grampians or Dense-leaf Grevillea', endemic to the area, in the higher elevations of somewhat damp sandstone like the summit area of Mt. William, Mt. Difficult, Dead Bullock Creek near Rose's Gap, The Victoria Range and Major Mitchell Plateau. A small shrub, relatively rare in its natural habitat with compact, 'stubby' flowers (very short styles), reddish-purple to deep pink in dense racemes. Leaves are fine, narrow, pointed with rolled margins, about 2-3 cm long.

Grevillea alpina. 'Cat's claw or Mountain Grevillea', distributed widely throughout Victoria's highland regions and in most parts of the Grampians. As with other widespread types quite variable in form, leaf-size and flower colour. Within the Grampians area colours are mostly a red and yellow combination but plain reds, yellows, golds, whites and pinks are found in other areas along with two-tone flowers of white/green, white/pink, white/orange. Grampians forms are generally more spreading to near prostrate or procumbent shrubs with larger and more colourful flowers than the general type. The species was named using two types collected by Lindley on Mt. William and published in 1838.

Grevillea dimorpha. 'Flame Grevillea', endemic to western Victorian highlands, found at Mt. Cole and in the Grampians at the north end of Victoria Range, Mt. Abrupt, Hall's Gap, Yarram Gap, Scrubby Creek, Pomonal. A very fine garden shrub of open, upright, rounded form to 1 m high. Stiff glossy dark green leaves to 10 cm long and very variable width, 2 to 15 mm with glossy bronze new growth and tips. The flowers are very bright postbox red with long protruding styles and spring from near the leaf bases so that the stems seem girded with fire-like colour. Moses couldn't have wished for a better bush! A good one makes a round 1 m shrub, open enough to see through, but just enough branches to make it look like a ball of fire in late spring. This species seems to have a good long flowering period right through autumn to late spring, never bare in midwinter but often so in midsummer. A most satisfying garden subject not worried by the heaviest soils and seems to tolerate alkaline soils reasonably while some Grevilleas turn chlorotic.

Growing Grampians Grevilleas

Horticulturally Victorian Grevilleas are very adaptable to a wide range of soil type and climatic conditions including exposure to sun, winds and frost and so are among our hardiest native 'flower' shrubs. However as a rule remember that none are swamp plants; reasonable drainage is evident in their natural situations so we should remember to provide this. A bed can easily be 'hilled' to 10 cm which is probably adequate if not in a pond of water.

Victorian Grevilleas have a very broad range of flower types, perhaps more so than appears from this article. The range of colours is from white through green, yellow, orange and pinks to deep red. Attractive flowers are generally displayed well not only to humans but to birds who arrive in hordes to collect the abundant nectar.

Most Grevilleas hybridise readily within flower groups but are more difficult across groups. It appears easier to cross two "toothbrush" types than it is a "spider" and a "toothbrush" type. In certain localities, e.g. the Black Range, apparent hybrids between *G. alpina* and *G. lavandulacea* have been reported. In the garden many hybrids have been produced over the years. However, in our opinion most of the older hybrids are of doubtful advantage over the better forms of natural species. Some of the newer varieties however seem more promising. Who could find a better display than a good *G. lavandulacea* in full blaze?

From observations in recent years Grevilleas in cultivation appear to be flowering earlier and for longer periods than in previous seasons. This could possibly be due to differences in climate and other local factors. It has been our experience that very few pests attack our Grevilleas, except for a few caterpillars and a little scale which cause little damage as a rule, very little pest control seems necessary in Grevilleas.

The variation of leaf form from fine needle type of *G. confertifolia* and *G. lavandulacea* to the broader foliage of *G. dimorpha* and *G. aquifolium*, the range of habits from prostrate like *G. repens* to tall upright forms of *G. aquifolium* give the gardener all the choices required for the basis of an excellent planting plan.

We believe that Grevilleas, in particular Grampians Grevilleas, could form the basis of many more fine, low maintenance gardens. ■

* REFERENCE: J. H. Willis. A Handbook to Plants in Victoria, Melbourne University Press, Melbourne, 1972.

Plants of Western N.S.W.

This book by G. M. Cunningham, W. E. Mulham, P. L. Milthorpe and J. H. Leigh, has been written to enable landholders and land administrators to recognise and understand the plants growing in Western N.S.W. It is also of great value in adjoining areas and will be used by field naturalists and botanists. The authors have had long experience in the western part of the state and it has been through their knowledge and photography that this book has become available. Each of the 2028 species known to occur in the region is briefly described. Notes on flowering time, habitat preference, distribution within the region and elsewhere in Australia, as well as information on usefulness, toxic properties, etc., are included for each species. The 768 pages contain 1500 colour plates and about 300 line drawings with many of the plants being illustrated for the first time.

Available from the Editor — Australian Plants for \$60.00 post free.

The Australian Cultivar Registration Authority

Its Purpose, Present Function and Future

Geoff Butler — Registrar

There appears to be much confusion at present about what the Australian Cultivar Registration Authority is and what its functions are. This article has been prepared to explain these points and to give any other details relevant to the aims and objectives of A.C.R.A.

What is the A.C.R.A.?

The A.C.R.A. is a non-statutory (and voluntary) organisation of persons competent in the fields of botany and/or horticulture. It represents various institutions from each State and the Commonwealth as well as the Society for Growing Australian Plants (S.G.A.P.) and the Australian Nurserymen's Association. These representatives meet at least once per year at the National Botanic Gardens in Canberra to discuss Australian plant cultivars that have been put forward for registration and any other matters that directly affect the registration of Australian plant cultivars. Related matters, such as Plant Variety Rights (P.V.R.) are also discussed.

The members of the A.C.R.A. at present (January 1982) are:

Chairman: Mr. Noel Lothian, former Director of the Botanic Garden of Adelaide.

Secretary: Mr. John Wrigley, former Curator, the National Botanic Gardens, Canberra.

Registrar: Mr. Geoff Butler, National Botanic Gardens, Canberra.

Members: Dr. J. Willis, former Government Botanist of Victoria; Dr. A. Orchard, Tasmanian Herbarium; Dr. R. Boden, Director, National Botanic Gardens, Canberra; Mr. A. Court, Officer in Charge of Herbarium, National Botanic Gardens, Canberra; Mr. P. Lumley, Royal Botanic Gardens, Melbourne; Mr. A. Rodd, Royal Botanic Gardens, Sydney; Mr. E. McAlister, Botanic Garden of Adelaide; Mr. E. Wittwer, Kings Park and Botanic Garden, Perth; Mr. D. Hockings, Department of Primary Industries, Queensland; Mr. T. van der Staay, Australian Nurserymen's Association; Mr. W. Payne, Editor of "Australian Plants" journal, S.G.A.P.; Mr. A. Chapman, S.G.A.P.; Dr. R. W. Johnson, Director, Queensland Herbarium.

The A.C.R.A. is an independent body recognised by the International Commission for the Nomenclature of Cultivated Plants (I.C.N.C.P.) and the International Union of Biological Sciences (I.U.B.S.). The I.C.N.C.P. is the international authority responsible for the formal registration of cultivated plants and the A.C.R.A. is recognised by them as the Authority on cultivars arising from the Australian flora, except for the genera *Leptospermum* and *Acacia* and the family orchidaceae which had previously been allotted to other Authorities.

How and When was the A.C.R.A. Formed and Where is it Based?

The initial idea to form the A.C.R.A. was put forward by the Secretary of the I.C.N.C.P. to S.G.A.P. in 1958. The Secretary of I.C.N.C.P. suggested that a National Registration Authority should be set up to register cultivars resulting from the indigenous flora of Australia. This suggestion became a reality in 1963 when the A.C.R.A. was formed at a meeting between the staff of the

Royal Botanic Gardens and National Herbarium in Melbourne and members of the South East Region of the S.G.A.P. The A.C.R.A. then consisted of members of these two organisations only. In 1970 the Director of City Parks in Canberra informed the A.C.R.A. that the Canberra Botanic Gardens (as it was then) was undertaking development and research into plant breeding and suggested that it would be beneficial for the Canberra Botanic Gardens to be represented on the A.C.R.A. This was agreed to and the Curator of the Gardens represented that institution. At the same time S.G.A.P., at a federal level, was represented by the acceptance of the Editor of the "Australian Plants" journal as a member. From 1963-1973 the Authority functioned with various degrees of success. While not actually registering any cultivars, it produced a number of checklists of cultivar names and established the ground rules for the functions of the Authority.

In 1973 the A.C.R.A. was relocated to Canberra Botanic Gardens (later renamed the National Botanic Gardens) because of the emphasis that organisation was placing on the introduction and cultivation of Australian plants. Its membership was also increased to give it an Australia-wide representation. The National Botanic Gardens then appointed from its staff an official registrar for the Authority. At this stage members representing N.S.W., W.A., S.A., Vic., A.C.T. and the Federation of Australian Nurserymen's Association attended. Other centres such as Qld. were very interested in the operations, but felt they could not attend due to financial problems in attending meetings in Canberra, but wished to be kept informed of developments. S.G.A.P. also agreed to support the A.C.R.A. and has continued to do so over the years.

In May 1974, the first annual meeting of this enlarged Authority took place in Canberra.

Does the A.C.R.A. Follow any Guidelines?

The I.C.N.C.P. has formulated and adopted a set of rules known as the International Code of Nomenclature of Cultivated Plants, the most recent edition of which was issued in 1980. The articles of this code are adhered to very rigidly, much the same as botanists follow the International Code of Botanical Nomenclature. This code consists of such items as:

1. General considerations and Guide Principles.
2. Formation of Cultivar Names.
3. Publication and Use of Cultivar Names.
4. Registration Procedures.
5. Recommendations for Guidance to Registration Authorities.

The Authority has produced an application form as a result of the Code which must be filled in and signed by the applicant/originator before any work is started on cultivar registration. If all the information is not supplied work will not proceed on cultivar registration.

What does Cultivar Registration Involve?

Registration involves seven main steps, all clearly outlined on the back of the Application Form.

1. When a plant specimen is submitted for registration a specimen is received by the A.C.R.A. and is given an accession number, assessed as to its value and entered into a cultivar register.
2. The specimen is colour coded using the Royal Horticultural Society Colour Chart, 1966 Edition.
3. The applicant is expected to provide good colour prints or slides of the cultivar, including a closeup and distance shot of the plant.
4. The specimen is pressed for retention in a herbarium, just as other botanical specimens are kept.

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Sphaerolobium daviesoides

Photography by B. A. Fuhrer

The terminal clusters of small orange, with yellow, flowers of this plant are well shown in the illustration. *Sphaerolobium daviesoides* forms a small many branched bush with spreading spine-tipped branchlets that bear the flowers. This is one of the species that show that the Grampians were botanically linked to Western Australia.

5. Once all details are received a description of the cultivar is prepared to include origin, habit, leaf size, leaf shape and texture, flower colour, size and shape, the distinguishing difference from the parent(s) and similar cultivars, synonymous names, previous publication dates and journals, colour code readings, date of receipt, accession number, applicant's name.
6. The finished description is then sent to the applicant for approval. Once approved it is circulated to the members of A.C.R.A. Any alterations submitted by the applicant or A.C.R.A. members are incorporated and the cultivar is then deemed registered pending publication of the name in a dated journal. For this purpose the S.G.A.P. journal "Australian Plants" is used.
7. The A.C.R.A. also appreciates live material of the cultivar for trial purposes at the National Botanic Gardens. While this is not obligatory it is appreciated. The A.C.R.A. and the National Botanic Gardens undertake not to release any material of cultivars unless prior written approval has been received from the applicant.

What is a Cultivar?

According to the Code of Nomenclature the term cultivar "denotes an assemblage of cultivated plants which is clearly distinguished by any characters (morphological, physiological, cytological, chemical or others) and which, when reproduced retains its distinguishing characters".

The word "cultivar" is derived from a combination of two words, "cultivated" and "variety". Any particular variety of plant when grown in cultivation could be classed as a cultivar. This can include plants collected from a natural situation if brought into cultivation. It more usually refers, however, to plants that have been especially selected because of certain traits or characteristics that are desirable, or to hybrids, either accidental or manipulated by man, that show good horticultural potential. Most people are generally prepared to call hybrids cultivars. Many people, however, would not be prepared to call a form of a true species a cultivar even though many of them have been selected for cultivation through the years. A dictionary definition of the word cultivate means to: "foster the growth of, refine, improve, further, encourage". Wrigley and Fagg in their book "Australian Native Plants" define cultivar as "... may be a hybrid or a selected form of a naturally occurring species which does not warrant botanical classification". So the word "cultivar" covers quite a large range. It can apply to plants which grow true to type from seed, to those propagated by vegetative means or to hybrids, either deliberately manipulated or line bred.

A botanical variety is given a Latin name and ranks one to two places below the species level and occurs in natural populations. A cultivar, on the other hand, is a plant or group of plants with very similar characteristics of economic or ornamental importance that have been selected by humans. Cultivars may be found in natural populations but do not warrant separate botanical categorisation, as mentioned above.

How many Australian Plant Cultivars have been Registered?

To January 1982, the A.C.R.A. has registered 111 cultivars arising from the Australian flora.

However, it also holds a very comprehensive range of herbarium specimens of cultivars that have not been submitted for registration together with many old cultivars that were in existence prior to the formation of the A.C.R.A. that are not generally grown today. The A.C.R.A. also has a very comprehensive card index system upon which every Australian plant cultivar name that can be found is entered. This now stands at some 1022 recorded names.

What is the Importance of Registering Cultivars?

From the earliest times of man's involvement in agriculture, plant strains have been selected for particular reasons. Plants which produced larger, more numerous or better quality seeds or fruits were selected and kept for the production of future crops. Many of the plants grown in Australia today of European origin do not even resemble their wild ancestors due to thousands of years of selection. The important thing to realise is that the Australian flora has the potential to be developed for horticultural use in much the same way as the European flora. We have a golden opportunity to keep comprehensive records on cultivars as they are developed. If then, there is a need to draw on certain genetic material for any reason, comprehensive records will be available on where this material can be found. It also allows us to keep the history of the development of the Australian flora accurately as it happens. It means that accurate information will be available to the nursery trade. It will also stabilise and standardize the use of cultivar names.

Plant Variety Rights

With the possible introduction of Plant Variety Rights (P.V.R.) legislation to Australia, the role that the A.C.R.A. has carried out to the present time may change. The legislation as drafted proposes that anyone developing a cultivar would submit it to the P.V.R. Registrar for registration.

However, the A.C.R.A. membership consists of a body of people well known for their knowledge of and association with the botany and horticulture of Australian plants. It also holds a wealth of information on cultivars that have been produced from the Australian flora. Specimens of registered and some unregistered cultivars are kept at the National Botanic Gardens as a reference collection. Comprehensive files are kept on all registered cultivars.

If P.V.R. is introduced to this country, the Registrar of the scheme will need to call on the A.C.R.A. to supply information, as it is written into the draft P.V.R. legislation that cultivars that are "common knowledge" prior to the introduction of the legislation will not be eligible for registration. The A.C.R.A. is the only body that holds such a store of information on Australian Plant cultivars, and this information will be made available if and when required. Despite direct representations to the Department of Primary Industry seeking formal recognition of A.C.R.A. in the registration of Australian plant cultivars under the new scheme, this has not been granted. There is no mention of any other organisation in the draft legislation, though the A.C.R.A. and its interest and competence in this field have been recognised in the informal talks we have had with the officers of the Department of Primary Industry.

Despite the above it has been shown in America that even if a plant is covered by Plant Variety Rights the name should be registered with the correct registration Authority to ensure its unique status. ■

Wildflower Nurseries in Queensland

Fairhill Nurseries — Fairhill Rd., Yandina, 4561. Tel. (071) 46-7193, P.O. Box 100. Large range of trees, shrubs, ground covers, climbers, ferns, palms and orchids for the sub-tropical and tropical east coast. Extensive display gardens 8.30 a.m. to 5 p.m. anyday. New comprehensive catalogue now available \$2.00 posted.

Lakkari Native Plant Nursery — Specialist growers of Australian Plants, retail & wholesale. Large range available. Browse through our display gardens. Many selected natives unique to Queensland as well as new cultivars and hybrids. Grevilleas, and rainforest species our speciality. Catalogue \$1.50 posted. Open 6 days (closed Saturday only). 477 Redland Bay Road, Capalaba, Queensland. Tel. (07) 206-4119.

Utingu Native Plant Nursery — (Bob and Glynis Dawson) — 37 Sorbiston St., Wellers Hill, 4121. Tel. (07) 397-5706. Open 7 days. Wholesale and retail, specialising in Australian native plants with a large variety of Grevilleas and other indoor and outdoor species.



Grevillea lavandulacea

Photography by B. A. Fuhrer

Lavender grevillea is an extremely variable species in growth habit, foliage form and flower colour, but is generally a low sprawling shrub. The form found in the Black Range, which is depicted here, is taller (to 1.5 m) with pink-red flowers; it is an excellent garden shrub, hardy in a well-drained sunny position.



Pultenea costata

Photography by B. A. Fuhrer

The dense terminal heads of orange-yellow pea flowers of this Grampians endemic are displayed during Spring and early Summer. The species is identifiable by the fine prominent longitudinal veins beneath the pointed oval smooth surfaced leaves. It grows to 1 m high by 2 m wide in lightly forested areas mainly in the Central Grampians.



Pultenaea scabra

Photography by B. A. Fuhrer

Pultenaea scabra is a widespread plant of Eastern Australia, growing 1-2 m high by 0.5 to 1.5 m wide in lightly forested areas, but is neglected in horticulture. As seen in the photograph, the foliage is often covered in the orange-yellow pea flowers during Spring. A distinctive feature is the rather long hairs on the stems and young growth.



Grevillea aquifolium

Photography by B. A. Fuhrer

This photograph shows the holly-like leaves and green toothbrush flowers with red styles characteristic of this variable species. The common Grampians form grows 1-3 m high by 2-5 m wide but a prostrate form 20 cm high is found in the Central Grampians. The striking velvety-pink to red new growth adds to the distinction of this hardy species very suitable for gardens.

Australian Plant Cultivars

An official release by the Australian Cultivar Registration Authority.

Helichrysum bracteatum 'Golden Bowerbird'

Origin:

Helichrysum bracteatum 'Golden Bowerbird' is the result of a manipulated backcross between *Helichrysum bracteatum* 'Cockatoo' to one of its parents, *Helichrysum bracteatum* 'Dargan Hill Monarch'. The cross was performed by Mr. Doug McKenzie of Ocean Grove, Victoria 3226.

Description:

Helichrysum bracteatum 'Golden Bowerbird' forms a shrub $\pm$ 40 cms tall by 70 cms wide and has foliage very similar to both parents. The foliage is grey in appearance due to the heavy tomentum covering the leaves.

The inflorescences of the cultivar are carried $\pm$ 10 cms above the foliage and are up to 10 cms across, though more commonly are 9 cms across. They are larger than the inflorescences of both the parents. The bracts are numerous, averaging 300 per inflorescence, compared with 80 in *Helichrysum bracteatum* 'Dargan Hill Monarch' (NBG 8006644) and 200 in *Helichrysum bracteatum* 'Cockatoo' (NBG 7911034). This gives a "doubled" appearance to the inflorescence. The buds are brown in colour and open to reveal clear yellow bracts and golden orange disc florets. The florets are $\pm$ 2.5 cms in diameter.

Description:

Helichrysum bracteatum 'Golden Bowerbird' is easily distinguished from both the parent forms by its much larger inflorescences, the far more numerous ray florets, and the bush is smaller and more compact than either of the parents. It is also a much brighter gold in colour than *Helichrysum bracteatum* 'Cockatoo'.

The cultivar strikes readily from cuttings. This method must be used to preserve this cultivar form. It has proved hardy in a variety of situations in Ocean Grove.

Comparative Specimens:

Helichrysum bracteatum 'Dargan Hill Monarch' CBG 8006644.

Helichrysum bracteatum 'Cockatoo' CBG 7911034.

Colour Coding:

Bracts — near yellow group 5A; Disc florets — yellow orange group 23A.

Reference Specimen:

Accession No. 226. Cultivar received by the authority on 29th September, 1980. The applicant is Mr. Doug McKenzie of 66 Adco Grove, Ocean Grove, 3226 Victoria.

Chamelaucium uncinatum 'Bundara Supreme White'

Origin:

Chamelaucium uncinatum 'Bundara Supreme White' was the result of a manipulated cross between two plants of *C. uncinatum*. The female parent was a white form of the species and the male parent was a seedling raised from this white flowered form. The cross was performed by Mr. D. Gust, of Bundara Nursery, Crows Nest, Queensland, and was done with intention of raising a prolifically flowering plant for the cut flower market.

Description:

The habit of this cultivar is similar to the normal *Chamelaucium uncinatum*. The flowers are a pure white in colour.

Diagnosis:

This shrub has leaves and flowers slightly smaller than the normal form of *Chamelaucium uncinatum*. The shrub is very dense and the flowers are borne on the branch terminals. The original shrub was bred with the cut flower market in mind. In the first year 2.2 kg of blooms were cut and in the second year 6.8 kg were cut from the plant. This crop rate was recorded at Bundara Nursery. The cultivar differs from other white forms of *C. uncinatum* in that it produces a heavier crop of flowers.

Colour Coding: R.H.S. Colour Chart — 1966.

Petals — white 155B.

Reference Specimen:

Accession number 136. Cultivar first received by the Authority on the 2nd September, 1977. The applicant is Mr. D. Gust of Bundara Nursery, Crows Nest, Queensland.

Chamelaucium uncinatum* 'Bundara Mystic Pearl'*Origin:**

Chamelaucium uncinatum 'Bundara Mystic Pearl' was the result of a manipulated cross between *C. uncinatum* 'Bundara Excelsior' as the female parent and a white form of *C. uncinatum* as the male parent. The cross was performed by Mr. D. Gust of Bundara Nursery, Crows Nest, Queensland and was done with intention of raising a prolifically flowering plant for the cut flower market.

Description:

The habit of this cultivar is similar to normal *Chamelaucium uncinatum*. The flowers are a pink-mauve on opening fading to a very pale pink.

Diagnosis:

A very robust shrub with a large number of the flowers borne on the branch terminals. This cultivar was bred with the cut flower market in mind and the first crop attained a 4.5 kg. cutting. This crop rate was achieved at Bundara Nursery. The cultivar may be distinguished from other similar colour forms of *C. uncinatum* by the heavier crop of flowers.

Colour Coding: R.H.S. Colour Code — 1966.

Newly opened flower — red-purple group 68D; Older flower — red group 36D.

Reference Specimen:

Accession number 135. Cultivar received by the Authority on the 2nd September, 1977. The applicant is Mr. D. Gust of Bundara Nursery, Crows Nest, Queensland.

Chamelaucium uncinatum* 'Bundara Excelsior'*Origin:**

Chamelaucium uncinatum 'Bundara Excelsior' was the result of a manipulated cross between two forms of *C. uncinatum*. The female parent was a pink flowered form and the male parent a seedling raised from the pink flowered form. The cross was performed by Mr. D. Gust of Bundara Nursery, Crows Nest, Queensland, and was done with intention of raising a prolifically flowering plant for the cut flower market.

Description:

The habit of this cultivar is similar to normal *Chamelaucium uncinatum*. The flowers are an attractive pale mauve.

Diagnosis:

This shrub is very robust. A large percentage of the flowers are borne on the branch terminals. The original shrub was bred with the cut flower market in mind and the flower bearing capability of the shrub was proven by the amount of flowers cropped from it. In the first year 3.4 kg., 2nd year 13.6 kg.

and the third year 18.2 kg. were cropped from one plant. This crop rate was recorded at Bundara Nursery. It is distinguished from other similar coloured forms by its heavier crop of flowers.

Colour Coding: R.H.S. Colour Chart — 1966.

Petals — red-purple group 68 between B and C.

Reference Specimen:

Accession Number 134. Cultivar first received by the Authority on 2nd September, 1977. The applicant is Mr. D. Gust of Bundara Nursery, Crows Nest, Queensland.

***Hardenbergia violacea* 'Happy Wanderer'**

Origin:

Hardenbergia violacea 'Happy Wanderer' is a selected form of the species which is said to have a very vigorous climbing habit.

Description:

Leaves are lanceolate in shape and $\pm$ 8 cms long when mature. They are a glossy green in colour. Leaves tend to be sparser with longer than normal internodal distances.

The flowers are 10 mm wide and are a rich violet-mauve in colour. They are borne profusely in racemes 9 cms long that arise from the leaf axils. Flowers are said to be found from June to early Spring.

Diagnosis:

This cultivar is said to be a useful plant for use on pergolas, trellises or fences.

Colour Coding: R.H.S. Colour Chart — 1966.

Standard and Keel — violet 86D; "Eye" of standard — yellow-green 144C.

Reference Specimen:

Accession No. 185. Applicant is National Botanic Gardens. Previously published in T.A.S.C. Shrub of the Year, "Your Garden", March, 1978.

***Myoporum* 'Monaro Marvel'**

Origin:

Myoporum 'Monaro Marvel' is basically prostrate but mounds to $\pm$ 30 cms tall in the centre of the shrub. It is a form selected in 1977 from a cultivated plant growing in Geelong, Victoria. The cultivar was selected by Monaro Nursery, Wallaroo Road, Hall 2618.

Description:

This cultivar will grow to $\pm$ 30 cms tall in the centre by 2 m in diameter after 3 years. It forms a dense, low shrub, becoming prostrate around the outer edges. The leaves are large, and are $\pm$ 6 cms long by $\pm$ 8 cms wide.

Diagnosis:

Myoporum 'Monaro Marvel' can be distinguished by its central upright mounding habit and very large leaves.

This cultivar has proven very drought and frost hardy in Canberra.

Colour Coding: R.H.S. Colour Chart — 1966.

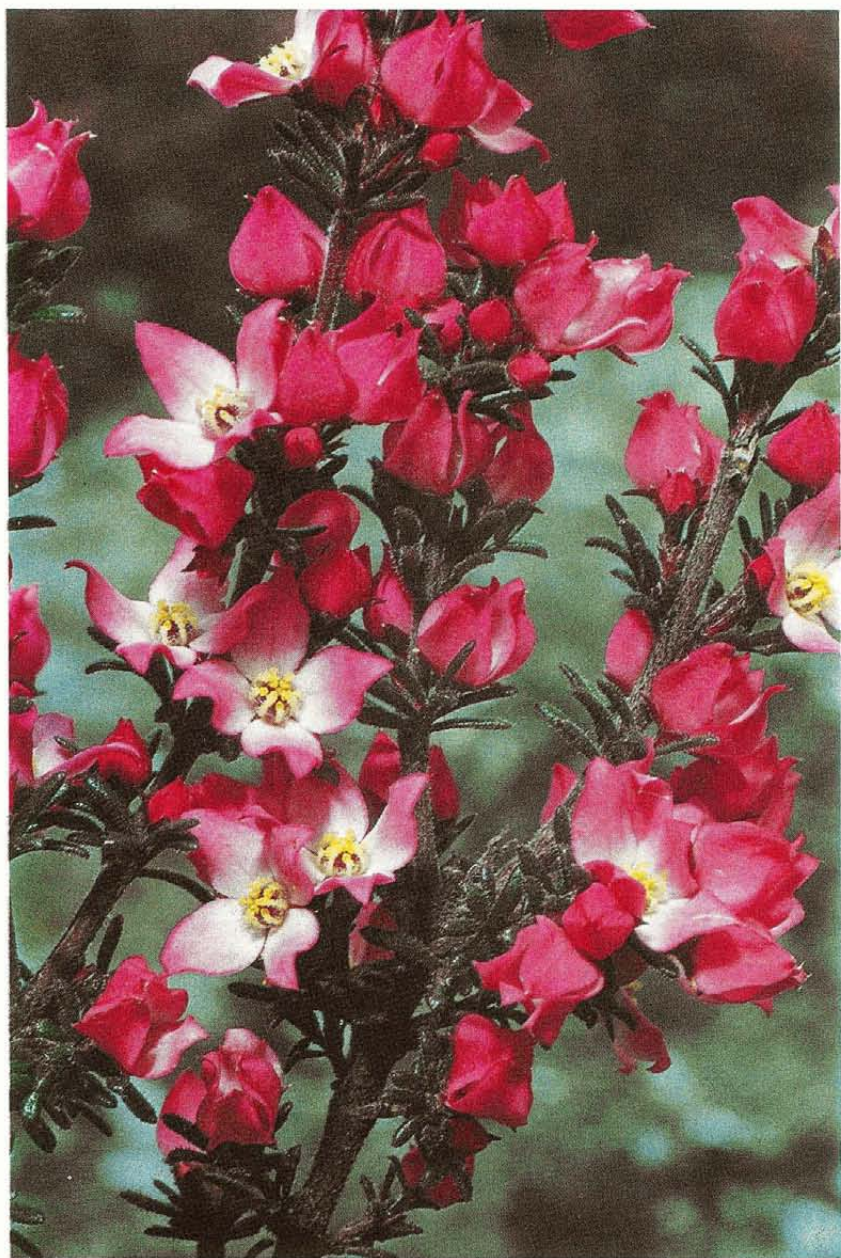
Petals — white group 155C.

Reference Specimen:

Accession No. 210. Cultivar received by the Authority on 12th September, 1980. The applicant is Ann Rehwinkel, Monaro Nursery, Wallaroo Road, Hall 2618.

Flora of Australia — Vol. 29 *Solanaceae*

The second volume to become available in this series of official publications of the flora of Australia is available from the Editor — Australian Plants for \$25.00 post free (Vol. 1 is \$15.00). It describes the species in the plant family *Solanaceae* represented in Australia by 23 genera which include *Anthocercis*, *Symonanthus*, *Duboisia*, *Solanum*, etc. Essentially a botanical work, the descriptions are clear and concise and are illustrated by numerous sketches, distribution maps and colour plates of 32 species. An ideal reference.



Boronia pilosa

Photography by B. A. Fuhrer

The illustration shows the deep-pink form of "Hairy Boronia" a common plant of heathlands, hillsides and higher altitudes in the Grampians. In cultivation it is a rounded compact shrub about 50 cm tall and wide with a reputation for being short-lived, however it is reasonably hardy in a shady well-drained position.

***Hardenbergia violacea* forma *rosea* 'Austraflora Aspiration'**

Origin:

Hardenbergia violacea forma *rosea* 'Austraflora Aspiration' is a colour variant of the normal violet flowered *Hardenbergia violacea*. Other forms of similar colours are in more open racemes and are less floriferous. It was selected in about 1975 by Molyneux Nurseries Pty. Ltd., Montrose, Victoria.

Description:

It is a scrambling creeper attaining a spread of about 5 m across and with support will climb to a height of about 2 m. The leaves are dark green, about 55 mm wide at the base, and taper to a rounded point. Veining on the upper surface is very distinct.

The pink pea-shaped flowers are produced in compact and numerous racemes arising from the leaf axils and held vertically above the foliage. Individual flowers are about 10 mm long and 10 mm wide.

Diagnosis:

This cultivar is different from other known forms of the species in its very compact and numerous racemes with musk pink flowers. These racemes are held vertically. The species usually has violet flowers. This cultivar will most commonly be known as *H. violacea* 'Austraflora Aspiration'.

Colour Coding:

Whole flower — purple 76A.

Reference Specimen:

Accession No. 166. Cultivar received by the Authority on 10th November, 1978. Applicant is Molyneux Nurseries Pty. Ltd., Belfast Road, Montrose, Victoria.

***Crowea* 'Festival'**

Origin:

Crowea 'Festival' is said to be a hybrid between *C. exalata* and *C. saligna* and was selected from a number of seedlings that arose in the garden of Mr. and Mrs. A. Cooper in Turramurra, N.S.W.

Description:

This cultivar is a small, dense shrub that grows to approximately 1 metre high by 1 metre wide. The flowers are starshaped, deep pink in colour and ± 20 mm in diameter. It flowers from November to March in Sydney with occasional flowers being found at other times of the year.

The leaves are 30-40 mm long by ± 4 mm wide and narrow elliptical to elliptical in shape. Leaf margins are entire.

Diagnosis:

Crowea 'Festival' can be distinguished from *Crowea saligna* as the leaves, even though of a similar shape to *C. saligna*, are smaller. *C. saligna* and *Crowea* 'Festival' have narrow elliptical to elliptical leaves. *C. saligna* has leaves 30 to 50 mm long by ± 7 mm across. *Crowea* 'Festival' has leaves 30 to 40 mm long by ± 4 mm wide. *C. saligna* has very distinct angular branches, to the point of being "winged". *C. exalata* has just discernable angular branches. *C. 'Festival'* has branches similar to *C. exalata*. Colour forms similar to this cultivar can be found in both *C. exalata* and *C. saligna*. However, propagation of these species can be difficult at times. *Crowea* 'Festival' propagates readily in a few weeks, giving a good percentage strike. This cultivar must be grown by vegetative means to preserve the form. It readily accepts heavy pruning and is a good cut flower.

Colour Coding: R.H.S. Colour Chart 1966.

Inside of Petals — greyed purple 186A; Outside of Petals — greyed purple 186B; Gynoecium — greyed purple 186D.

Reference Specimen:

Accession No. 194. Cultivar received by the Authority on the 9th February 1980. Applicant is Mrs. I. Cooper, 4 Hicks Avenue, Turramurra, N.S.W.

***Melaleuca linariifolia* 'Snowstorm'**

Origin and Notes:

Melaleuca linariifolia 'Snowstorm' is a dwarf cultivar of unknown origin. It is said that after six years the original cutting grown plant was very dense and symmetrical in shape, being about 1.5 m high and 1.5 m wide. Flowering can be sporadic throughout the year but the main flowering season is in late winter and spring when it is claimed the whole plant is covered in flowers.

Description:

Leaves are green excepting the young new growth which is pink. Individual leaves are very narrow being 1 mm wide and 18-25 mm long. The midrib is clearly visible on close inspection. This cultivar can be distinguished from the more typical forms of *M. linariifolia* in that it is a dwarf form.

Flowers are white and produced in "brushes" up to approximately 40 mm in length.

Colour Coding:

The head of flowers, the 'brush' — white group 155A.

Reference Specimen:

Cultivar received by the Authority on 10th November, 1976. Accession No. 116.

Australian Wildflower Seed Suppliers

Nindethana Seed Service — Largest selection of native seed in Australia. Nindethana, Narrikup, W.A. 6326. Available in 50c pks. gram lots or kgs. Send 27c stamp for free catalogue. Tel. (098) 46-2205 in business hours.

H. Grant — 2 Sandra Pl., Dubbo, 2830. West N.S.W. a speciality. Two stamps for a catalogue posted.

Wildflower Nurseries in New South Wales

Bundara Native Nursery — 37 Carters Road, Dural, Sydney, 2158. Tel. 651-1962. Specialising in *Grevillea*. Open weekends. Weekdays please ring first.

Cranebrook Native Nursery — R23 Cranebrook Road, Cranebrook, N.S.W. Tel. (047) 77-4256. Four miles north of Penrith, between Tadmore and Taylor Roads. Open 10.00 a.m.-8 p.m. Closed Sundays.

Denovans Nursery — 188 Marco Ave., Panania, 2213. Tel. 77-8891.

Forest Native Nursery — 9 Namba Road, Duffy's Forest. Tel. (02) 450-1785. We specialise in a wide range of native plants. Catalogue \$4.50 posted. Open 7 days.

Floralands — Parry's Nurseries Pty. Ltd. Kariong via Gosford, 2250. Tel. (043) 40-1142. Preservation by cultivation. Send \$1.50 for descriptive catalogue.

Kentlyn Native Plants — 96c George's River Rd., Campbelltown, 2560. Tel. (046) 25-1583. Open 7 days.

Telopea Valley Nursery — George Downes Drive, Kulnura, 2250, 1.5 km past Kyola Road. Rare and unusual natives. Phone: (043) 76-1318 (best at 9.00 a.m.). Send S.A.E. (230 x 100 mm) for list. Regret no mail orders. Closed Tuesdays.

Wirrimbirra Native Nursery — Hume Hwy, between Bargo and Tahmoor E. side 2574 (3 km N. from Freeway entry). Wide range including unusual plants. Tel. (046) 84-1112.

Wirreanda Nursery — end of Wirreanda Rd., Ingleside, 2101. Tel. (02) 450-1400. Growers of advanced and semi-advanced native trees and shrubs. Open 7 days.

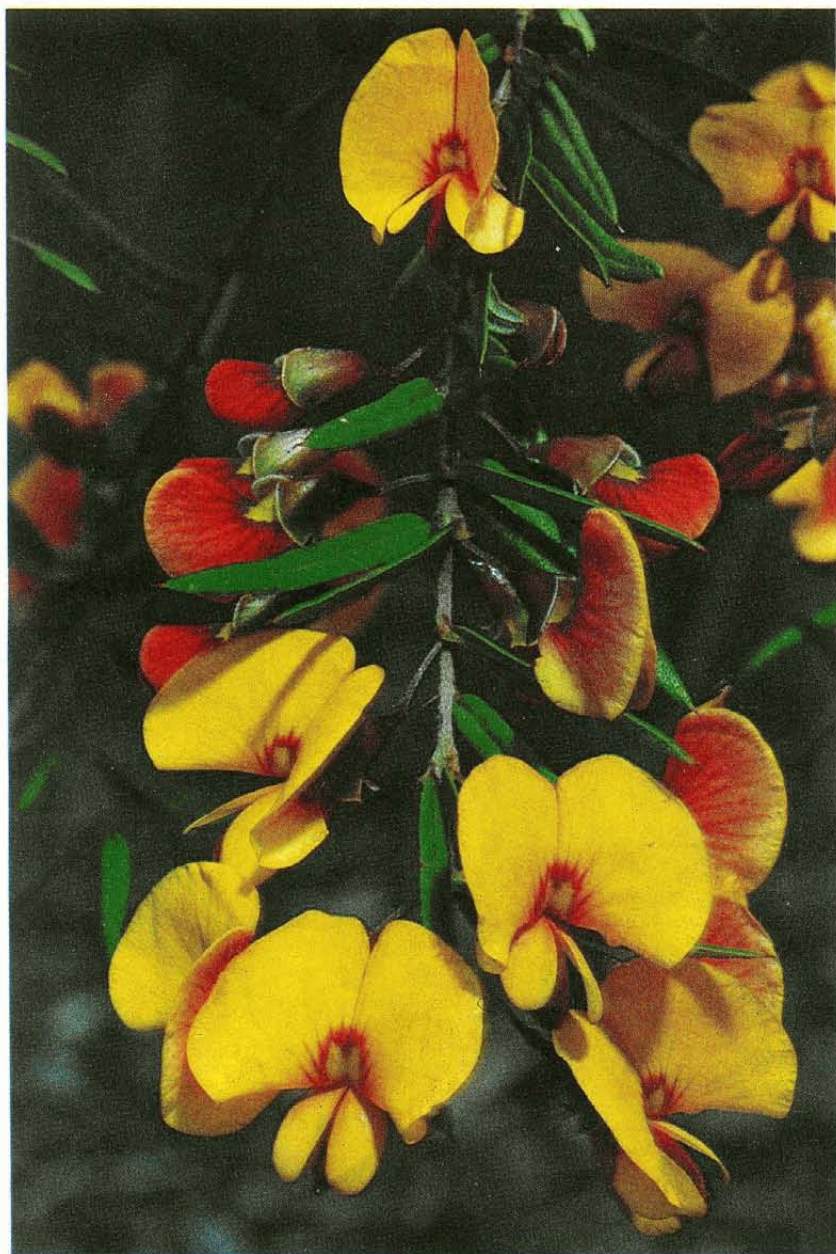
Deanes Orchid Nursery — Specialist in Australian Native Orchids, 29 Hemers Rd., Dural, 2158. Tel. (weekdays) (02) 651-1798. Nursery closed Friday. Plants sent anywhere. Please send for descriptive list.

Wildflower Nurseries in Tasmania

Banksia Nurseries P/L — Waratah Hwy., Elliot 7325. Tel. (004) 36-3128. Open 7 days, 9-5. Grower of rare and common Australian native plants. Available in most sizes at certain times of the year. Advanced and tube lines a speciality. Send S.A.E. for list.

Wildflower Nurseries in Victoria

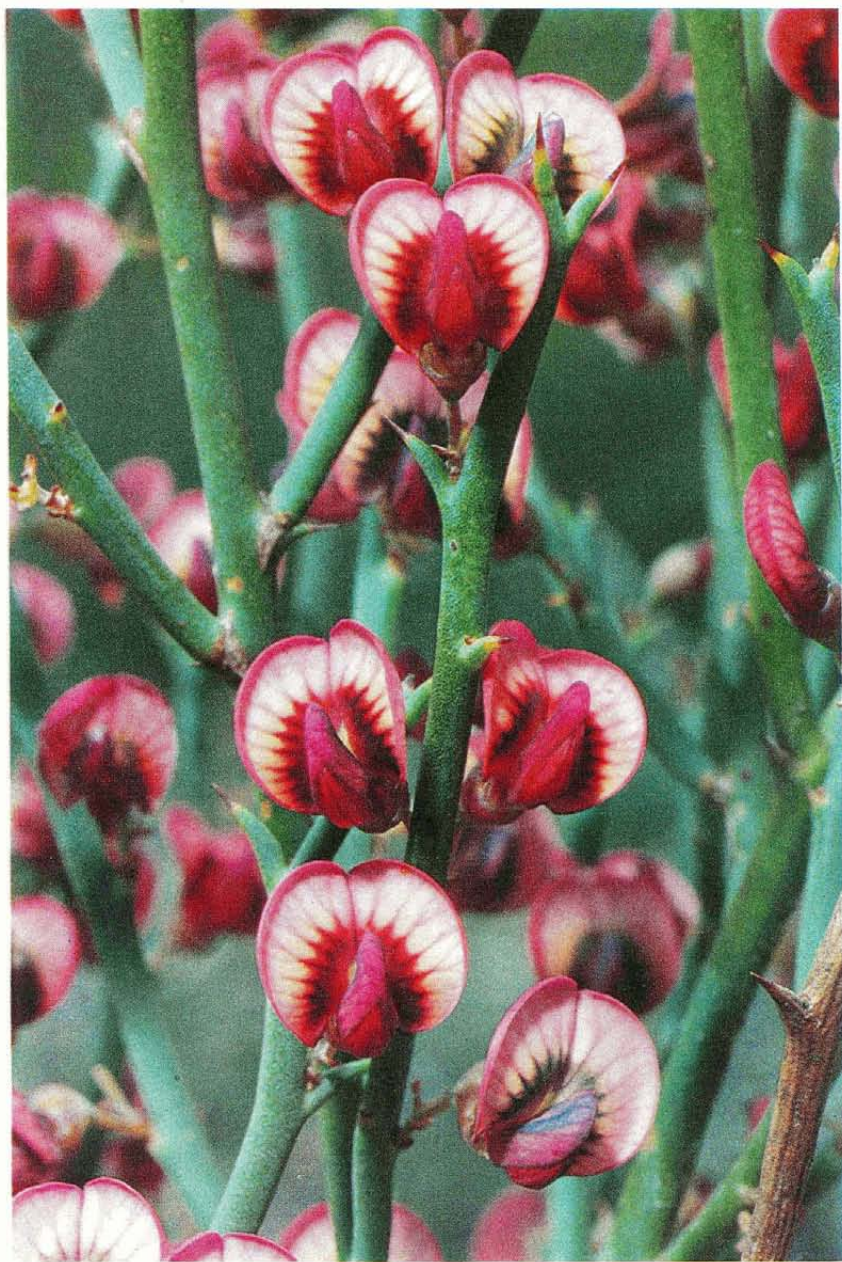
Austraffora — The nursery with the "Native Know How" — Belfast Rd., Montrose 3765. Tel. 728-1222. Mon.-Sat. 9-5.00 p.m. Sun. 10-5.00 p.m.



Bossiaea rosmarinifolia

Photography by B. A. Fuhrer

This Grampians endemic is usually found in moist areas. The yellow and reddish pea-flowers provide a colourful display from late Winter to Spring. *Bossiaea rosmarinifolia* is distinguished from the closely related *B. cinerea* by its 1-2 mm wide leaves 15-20 mm long on a small stalk (*B. cinerea* has stalkless triangular leaves). Apparently the behaviour of this species in cultivation is unknown.



Daviesia brevifolia

Photography by B. A. Fuhrer

This leafless bluish-green broom-like bush to 1 m high is covered with delicate apricot to wine-red flowers during Spring. The illustration shows the characteristic shape and markings of the flowers. The swollen waxy triangular seed pods about 12 mm long are often mistaken for leaves. It needs good drainage in cultivation.

BOOKS FOR SALE FROM THE EDITOR

Native Trees and Shrubs of South-eastern Australia

by Leon Costermans

This 422 page (255 x 185 mm) book has been prepared principally as a guide to field observation of the Australian flora of the southeast. The author has, for many years, been associated with groups such as the Scout Movement, specialising in the description of the bush scene and the plants on display. This is reflected in the very basic, and well illustrated way in which the plants of each area are identified by using simple but detailed line drawings supported by very good descriptions of the plants and by 300 colour plates. Go into any of the areas covered and you will easily identify most trees and shrubs. However this is more than just a field guide. It adequately describes all the plants of interest in the area. Available at your book seller for \$31.50. Because of the high cost of postage I can only supply it for \$34.00 postage included.

Books On Orchids

The only authoritative book on the Australian epiphytic orchids is "Australian Indigenous Orchids Vol. 1", by A. W. Dockrill. There are 6 copies left @ \$36.00 plus \$2.00 post. It is being revised. It is principally a scientific work but the large full page detailed sketches and special simple description sections have proved invaluable for the amateur. To supplement this, "Australia's Tropical Orchids", by Lavarack, Gray and Dockrill will be available early in 1983 to become the authoritative work on cultivation with lavish colour illustrations. Of interest would be three books on orchids, principally exotic:

Growing Orchids

by J. N. Rentoul

Available from your bookseller.

Book 1 — Cymbidiums and slipper orchids; Book 2 — Cattleyas and other Epiphytes. A well presented book with 200 coloured illustrations, book 2 is priced at \$19.95. Jim Rentoul is highly respected for his practical approach and writings on the cultivation of orchids, a sufficient recommendation in itself.

Growing Your Own Orchids

by Wilma Rittershausen

\$10.00 at your bookseller.

As the publishers claim this is an illustrated guide with instructions for growing 150 of the world's orchids. The instructions are rather superficial but for those with suitable heated glasshouses, possibly adequate.

Asian Orchids

Available from Editor — SGAP for \$42.00 post free.

An interesting colourful book on exotic orchids originating in Singapore.

Books On The Flora (Some including fauna) of Discrete Areas

For Australia

Flora Of Australia — Volume 1, Introduction \$15.00

Australian Plant Genera — The only botanical reference to all genera \$11.30

For N.S.W.

Flora of the Sydney Region — The well known Beadle Student's Flora \$35.00

"Plants of Western N.S.W." — 752 pages, colour illustrated \$60.00

"Plants of N.S.W." — A census of Cycads, Conifers and Angiosperms \$20.00

"Kosciusko Alpine Flora" — Costin, Gray, Totterdell and Wimbush \$29.00

For Queensland

"Native Plants of Queensland" by Keith Williams \$32.00

"Wildflowers Of Tropical Queensland" — A Wilderness in Bloom by Hinton \$9.00

"National Parks of Southern Queensland" by Mackness \$15.00

For Victoria

"Handbook to Plants in Victoria", Willis — Vol. 1 \$24.00; Vol. 2 \$32.00

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"Flora of South Australia", Black — Part 1, \$20.00. Parts 2-3 and 4 each \$9.00

For Northern Territory

"North Australian Plants," Harmer \$8.00

"Flora Of Central Australia" Aust. Systematic Bot. Soc. \$37.00

For Western Australia

"Flowers and Plants of Western Australia" \$26.00

"West Australian Plants — A Descriptive Catalogue", Beard \$10.00

"West Australian Plants For Horticulture" — Part 1 and Part 2 each \$10.00

For Tasmania

"A Guide To Flowers and Plants Of Tasmania", Ed. M. Cameron \$25.00

About Specific Groups of Plants

Ferns — "Australian Ferns & Fern Allies". Revised & Enlarged. Jones & Clemesha \$22.00

Eucalypts — "Eucalypts" Vol. 1 and Vol. 2, by Stan Kelly each \$24.00

"A Gardener's Guide to Eucalyptus", by Ivan Holliday \$18.50

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"Aquatic Plants Of Australia" — H. Aston \$25.00

"Useful Wild Plants In Australia" — A. B. & J. W. Cribb \$16.00

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"Seaweeds of Australia", Ed. 1; Christianson \$20.00

Carnivorous Plants — Slack \$20.00

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 - "CRADLE OF INCENSE", The Genus *Prostanthera* by G. W. Althofer, \$15.00 plus \$1.40 postage. The only reference to our Mint Bushes, the genus *Prostanthera*.
 - "THE LANGUAGE OF BOTANY", by C. N. Debenham, \$7.20 plus \$1.00 postage. An outstanding reference to botanical terms with examples from Australian flora.
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The Society for Growing Australian Plants

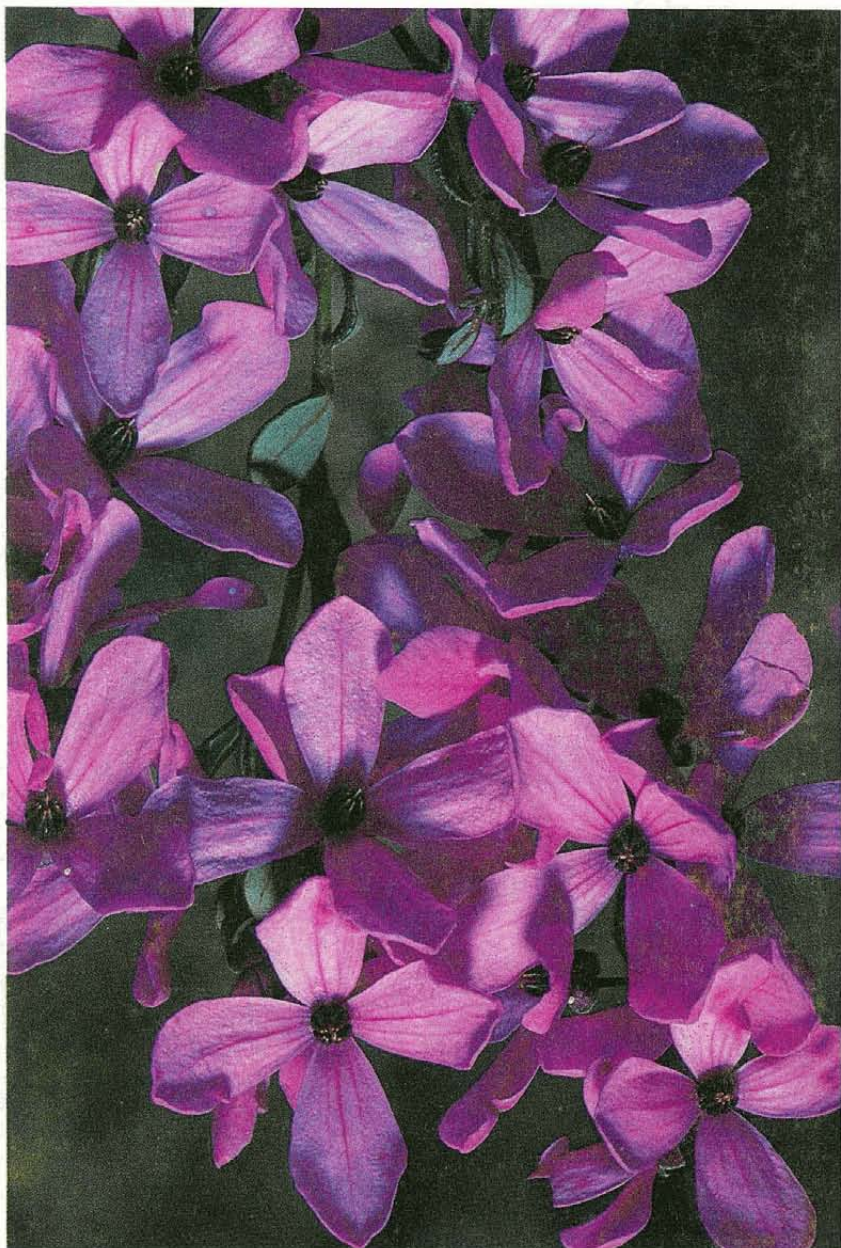
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Tetratheca ciliata

Photography by B. A. Fuhrer

This plant which grows as a small clump 30-50 cm high and 50 cm wide has upright stems with roundish or oval leaves edged with hairs and arranged in regular whorls of three. The pink to mauve, four petalled, usually pendant flowers with dark anthers at the centre are conspicuous throughout the Grampians between July and December. A shade loving plant it requires good drainage in cultivation.