



ASGAP
HIBBERTIA
STUDY GROUP

NEWSLETTER
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HIBBERTIA DENTATA

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WELCOME

Hello, and welcome to this first issue of the Newsletter of our re-started Hibbertia Study Group. I'm sorry it has taken so long to get my first Newsletter out (some of you have been waiting 18 months) but now that a start has been made I am aiming to produce four issues per year.

As you will see in this issue we have held our first meeting (page 5) and are about to meet for the second time on 9 November 1991. The venue will be the home of Norm and Jill Cornwell, 18 Shipston Road, Cheltenham at 2.00pm. My thanks go to Faye Candy for organising the previous meeting and recording minutes and to John Knight for Chairing in my absence.

Also in this issue we feature two wonderful articles from Barbara Buchanan. Kerry Davis has typed up these on his computer and I'm sure you will agree that this makes them more attractive and readable than the other articles which have been produced with conventional typewriters. Thanks to Barbara and Kerry. Thanks as well to Norm Cornwell and Ron Pearson for the two articles lifted from the SGAP Heathland Group Newsletter.

Kerry has also produced a list of species from the Encyclopaedia of Australian Plants suitable for cultivation Vol. 5 by Elliot & Jones. This has been printed for you to record the numbers of plants you have growing. There is two copies for you to fill in, one to be mailed back to me and one for you to keep. Incidentally, I would regard Vol. 5 of the Encyclopaedia to be required reading for all study group members.

You will notice a list of members (page 6). I wish to encourage you to communicate amongst yourselves, this can only help us all as we study this spectacular genus.

Happy hibbertias,

Ross

What is a *Hibbertia*?

Barbara
Buchanan

The genus *Hibbertia* makes up more than one third of the family Dilleniaceae to which it belongs, and Dilleniaceae is the only family in the order Dilleniales. Apart from the *Hibbertias* of Southern Australia the family and order are typically tropical, which includes the only other species, *Dillenia* found in Australia. The numbers given for *Hibbertia* species vary in each reference I have, from 110, 130 to 155, with from 10 to 25 being found in West Irian, New Caledonia and Madagascar, all the rest being Australian. My reading is now a few years out of date, but states that a thorough revision of the genus is under way. Maybe it has been published, but I suspect not.

Dilleniaceae is regarded as one of the more primitive plant families because of features of the floral structure such as the number of floral parts, floral symmetry, the location of the gynoecium (female part of the floral), separate carpels and single seeded fruit, etc.. Non botanists are sometimes puzzled by the emphasis on floral structure in taxonomy. Plant habit and leaf form respond to environment and can change as climate changes, at least so far as external appearance goes. Floral structures have evolved from modified leaves about a stem tip and don't go backwards so that they are thought to best show evolutionary relationships. The internal structure of leaves may indeed hold this record too, but it needs special microscopic examination to find it. The number and structure of the chromosomes similarly reveal relations within a family or genus and these days' plant chemicals can also be used.

In a paper published in 1976, Stebbins and Hoogland suggest that the genus *Hibbertia* would be a good model to study the evolution of Angiosperms (flowering plants). I may attempt a summary of the paper another time, but I have drawn on it for information about the genus. Within the family the structure of the anthers separates *Hibbertias* from rest.

Identification of species is not particularly easy and I have not seen a good key for all states. Flower shapes are all fairly similar; it is easy to recognize flowers as *Hibbertias*, with their five obovate petals with a notch at the apex. (Obovate - egg shaped, ob - upside down that is petals wider at the apex than base.) The colour is yellow in all but three species that have some red giving an orange colour. I have trouble being sure of *Hibbertias*; I think this is due to a lot of variation in some species and I was greatly cheered to read that the South Eastern Australian species fall largely into species clusters that centre around certain widespread species, for example, *H. sericea*, and *H. stricta*. Within these clusters' taxonomists differ as to the limits of individual species, so what hope have we got? There is probably a very useful role for the group here in collecting herbarium specimens from as many areas as possible for comparison.

All *Hibbertias* are woody shrubs, many small, some sprawling and climbing and some two metres high. There is quite a range of leaf size and shape from 10 to 11 x 3 to 4 cm in a tropical species to the small heather like leaves we are more familiar with locally. Leaves can vary appreciably between dry and wet seasons. However there is too much range within a species for leaves to be of much use in identification, and the chief feature used is the number and arrangement of the stamens. These vary from four (or less) to 200 and may be equally arranged around the carpels (the primitive shape), on one side and / or in clusters of three to five.

Of great interest to me as a biologist, but of no use in the field, is the great range of chromosome numbers, from $n = 4$ to $n = 64$. One of the greatest ranges of any Angiosperm genus, certainly for the total species number.

Apart from *H. glaberrima*, the *Hibbertias* are distributed around the periphery of the continent with concentrations of about 65 species in the South West and about 40 species in the South East. The South West group shows the greatest diversity and occupy a wide range of habitats, all but the driest interior. The South Eastern group shows signs of more recent specialisation and is correspondingly less diverse. They are one of the most ubiquitous of Australian shrubs, and it is common to find several species growing in the same area, which is not common with other plants. We certainly have two here at Myrree, often side by side, although the *H. stricta* tolerates drier areas than *H. obtusifolium*.

Why *Hibbertia*?

Barbara
Buchanan

You've got to start somewhere. When I realised that to maximize the benefits of being in SGAP one should join a study group or two or three. I was faced with the problem, which study group? I love them all, I want to grow them all. My first choice, hibbertias, was by way of an apology to plants. I had come to recognize as extremely useful in the garden, but had somewhat contemptuously dismissed as "just Guinea flowers" in my childhood, for the very reasons they are not useful. I was lucky enough to have many weekend picnics and school holidays in the bush around Perth where my interest in flowers was kindled and the first stirrings of a collecting instinct developed. It seemed that the golden Guinea flowers were always there - they grew everywhere and always had a few flowers. (To be honest we went to the beach in the summer so I can't be sure they flowered then.) They were no good for picking and all looked very much alike and there was no one to point out the subtle differences.

Things are quite different to a gardener's eye. A spot of colour for a large part of the year, a spot of bright cheerful colour in the depths of winter, a range of species for all sorts of soils and situations, and especially the reflection of sunshine in the dull shady parts of the garden, these are of great interest to me now. A further point in favour of hibbertias is their relative immunity to grazing, they seem to come out of the bush into the edges of the paddocks around here because they are untouched by rabbits, roos and grasshoppers. I was very impressed by shoulder high, metre wide mounds of *H. cuneifolia* on my brother's place at Margaret River, WA, which had survived years of dairy farming on the block where all the other understorey was gone. While this means a great deal in the country, it is not very relevant to the urban gardener. The reverse applies concerning the great range of small hibbertias that can be tucked into small places and cover odd bare spots. In the country I tend to lose these to the weeds and look more to the larger shrubs that can persevere.

So hibbertias it was and over the past ten years I've tried whatever has come to hand. With this experience behind me and the rebirth of the Study Group I think there are a few special areas, within the context of the Study Group aims that we can investigate.

Given the generally constant appearance of hibbertia flowers, they can form a great unifying theme within a garden, and we need to identify and publicise the best species for particular uses. While we will continue to seek out and trial new species for our own interest we can only expect a limited number to enter John Citizen's garden. Reliable information about which will do what where, and about species that will survive and perform in difficult situations will encourage their general use. Indeed the small hibbertias are already established in general nurseries in the low ground cover section. We must help more to spread. Pots and hanging baskets are another area where hibbertias have a foothold that we can look to increase.

It might seem logical that the most reliable species will establish themselves in the trade and in gardens, but this is not necessarily so. Commercial propagators produce plants that they can strike easily and sell quickly. Plants that sell well under modern marketing conditions are those plants that flower at an early age in a pot, with slight regard to reliable garden performance. Some of the small hibbertias do meet the criteria and hence their spread into the general trade. Some of the larger ones do not, for example, *H. cuneiformis*. When it flowers in a pot it has only a sparse leaf cover, the flowers and leaves are small, and it is almost certainly badly rootbound and a bad bet to plant out. I suggest this is the reason it is not often available now as in the past. We need to try to see that these plants don't disappear from cultivation and continue to be available to the Australian plant enthusiasts, preferably before they have become rootbound.

Some hibbertias produce flowers for seven months, others cover themselves with glory for a briefer spell, many do a little of each. Will pruning affect the pattern of flowering? Can we select within a species for both or either type to be developed? How much sun do they need for a good show and how much shade will they tolerate and still do passably well? In Newsletter 17, the last of the old series, grafting trials of *H. miniata* and *H. stellaris* onto *H. scandens* are described. Who has nimble fingers to carry on? These are some of the reasons I chose hibbertias. What do you want to do?

Happiness is a Hibbertia

Norm Cornwell

What is the first thing that comes into your mind about the following colours: red....., blue....., green....., and yellow? I thought of blood, sky, grass and..... hibbertias. Yes - hibbertias (however, sunshine and warmth were a close second and to me that's what hibbertias are).

Most hibbertias are natural to Australia only and most of them have bright yellow blooms. There are, however, a few plants that can grow outside of Australia and there are some plants with orange or coppery blooms.

No garden (whether native or exotic) is complete without a hibbertia, and listed below are just a few that could meet your requirements.

Problem: You have either a shed, fence or wall that needs covering, or perhaps a large tree stump that cannot be moved.

Solution: *Hibbertia scandens* Snake Vine

Problem: A steeply sloped area which is difficult to grow other plants in.

Solution: *Hibbertia empetrifolia* Scrambling Guinea Flower; *Hibbertia scandens* Snake Vine.

Problem: A narrow bed along a driveway where you wish to conceal a fence.

Solution: *Hibbertia cuneiformis* Cutleaf Guinea Flower; *Hibbertia scandens* Snake Vine - providing you put something up for this plant to climb on.

Problem: Where space is limited e.g. small gardens, units, flats or no gardens at all.

Solution: Pot/tub specimens - *Hibbertia microphylla* Small Leaf Guinea Flower; *Hibbertia obtusifolia* Hoary Guinea Flower; *Hibbertia serpyllifolia* Thyme Leaf Guinea Flower.

Problem: Something that could be grown in a garden that could keep weeds down to a minimum, but would not unduly smother or compete with most of the other plants.

Solution: *Hibbertia dentata* Twining Guinea Flower.

Problem: You have a nicely established garden but it seems to be lacking 'that something'.

Solution: *Hibbertia stricta* Erect Guinea Flower; *Hibbertia sericea* Silky Guinea Flower; *Hibbertia dentata* Twining Guinea Flower.

Problem: You would like a hibbertia when not in flower (like a Clayton's - you're having a drink when you're not having a drink).

Solution: *Hibbertia cunninghamii* (syn. *bracteosa*) Guinea Flower; *Hibbertia grossulariifolia* Gooseberry-leaved Guinea Flower.

Problem: You wish to grow the difficult ones.

Solution: *Hibbertia stellaris* Orange Stars; *Hibbertia prostrata* Bundled Guinea Flower.

Problem: Where to get more information about such plants.

Solution: A library, *Encyclopaedia of Australian Plants* Vol. 5 by Elliot & Jones (Lothian 1990) and *Australian Native Plants* by Wrigley & Fagg (Collins 1979).

From SGAP Heathland Group Newsletter.

FIRST HIBBERTIA STUDY GROUP MEETING

Minutes prepared by Faye Candy.

The Hibbertia Study Group's first meeting held at Karwarra Native Garden, Kalorama on 17 August 1991. Six members attended: Barbara Buchanan, Faye Candy, Norm Cornwell, Kerry Davis, John Knight (Chairperson) and Ron Pearson. Ross Field, Leader, was unable to attend as he was attending an SGAP meeting in Warrnambool. Apologies were also received from Barbara Henderson (Queensland), Anne Kerr, Helen Morrow and Roy Perry.

Objects of the Study Group discussed were:

1. Membership structure - active and passive members; which led to discussion of fees - it was decided to raise fees to \$5.00 per year which would probably just cover costs of Newsletter and postage, and not leave much for other activities. It was suggested that passive members pay more to offset costs incurred by active members, e.g. potting mixes, petrol, photography, etc. However, we decided this was impractical and no decision was reached. Fees to be due from 1 July 1991.

2. Two hibbertia collections to be established - one at Karwarra Native Garden, Kalorama, a beautiful mountainous area, deep friable soil, cold winters, but a proven growing area for hundreds of species of native plants; another at Cheltenham Park, Park Road, Cheltenham, a naturally deep sandy area, temperatures milder than that of Karwarra. Two such contrasting areas should make for interesting comparisons.

3. A Seed Bank to be organised - any spare seed gratefully accepted, and any reports on successful seed raising would be gratefully accepted.

4. A collection of pressed flowering specimens to be kept.

5. The Study Group to have four day meetings per year - 2 meetings at each venue - the meetings to consist of a general discussion, a working bee included, any plants donated to be planted out, exchanged or sold on behalf of group, any cuttings exchanged.

6. A slide collection to be kept - there is one in existence; we believe it has hibbertias only from Western Australia, so we need slides from all other States.

7. We need as many hibbertias as members can spare for planting out at both Karwarra and Cheltenham Park.

8. Would any members like to specialize in any particular area? A particular species, a certain method of cultivation, growing hibbertias in pots or hanging baskets, grafting methods, etc. Barbara Buchanan has already said that she would like to specialize in the tall-growing species.

We need to have a discussion on costs to be met re. postage on cuttings.

Could members on receipt of the Newsletter answer with a list of hibbertias they are currently growing in their own gardens. The age of the plants is also important. Kerry Davis is to keep a list of the species supplied by members.

The next Study Group meeting is to be held at Cheltenham Park. We meet at Norm Cornwell's place at 2pm on 9 November. Norm's address is 18 Shipston Road, Cheltenham 3192.

All correspondence to the Hibbertia Study Group to: Leader, Ross Field, 4 Tyree Avenue, Springvale, Victoria 3171.

Hibbertia acicularis

Ron Pearson

Every now and then one of these surprises that come to us on our way past, arrived in the shape of *Hibbertia acicularis*. David Bainbridge had included it in his *Mordialloc Council* list of plants growing in that municipality. When we looked for it in its only known location in a park near where I live, we found that for several years it had been routinely cut down to little higher than ground level during the Council's regular mowing program. David and I were able to find 4 or 5 small plants which had managed to survive over the years. With Council approval we have been able to provide temporary protection for two or three plants by enclosing them in a small fenced area.

The plants flowered this year in February-March. I was fortunate enough to collect some seed from one plant, but I do not have much expectation that they will grow when sown, as seeds of most *Hibbertia* species are notoriously difficult to germinate. However, if the seed does not germinate, a further opportunity for propagation of the plant will occur later when the plants have grown a little larger and cuttings can be taken.

These small plants are now quite rare in the Heathland area and are the only recently recorded population growing naturally in the Springvale, Mordialloc, Moorabbin, Braeside and Chelsea areas. The nearest other population occurs at The Grange Reserve in South Clayton.

From SGAP Heathland Group Newsletter.

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