



ASGAP
HIBBERTIA
STUDY GROUP

NEWSLETTER
NO. 19

HIBBERTIA DENTATA

ISSN 0728-1536

A FEW WORDS FROM YOUR LEADER

Hello again, and welcome to my second issue as Leader of the Study Group. I hope you found something of interest in last issue and that this will also be interesting for you. I have noticed that some Study Groups have up to 20 page Newsletters, though not 4 times a year, and I find the prospect of producing such a large edition to be thoroughly intimidating. However, with a contribution from you every so often, I'm sure the Newsletter could grow to at least 8 to 10 pages. I look forward to hearing from you.

After printing No. 18 I was embarrassed to sit down to re-read the final product in one go and realise that I forgot to acknowledge Faye Hobby (SGAP Heathland Group) for the beautiful drawing of *Hibbertia dentata* which graces this cover. Faye normally produces fantastic watercolours of Australian plants but agreed to dabble in line drawing for me. I hope we will see more of her efforts concentrated on hibbertias.

Norm Cornwell commences a regular column in this issue which I hope will serve to encourage the relative novices amongst us to make a contribution to the Newsletter no matter how scientifically lacking our own knowledge might be. Norm has a way of being able to communicate on a clear, simple level which all can follow and he has an enthusiastic and infectious writing style that just begs you to get involved.

Happy hibbertias,

Ross

6 February 1992

BASIC BOTANY

I hope to include regular botanical updates on the hibbertias and would welcome any contributions from members, either of a general nature or concentrating on individual species. If we can develop a core of botanically knowledgeable members we will find it much easier to identify species as we go along.

The following information is extracted from Name That Flower by Ian Clarke and Helen Lee (Melbourne University Press 1987 - page 139). This book is an excellent starting point for budding lay botanists and I heartily recommend that you obtain a copy if you intend to undertake any serious study of Australian plants. (This is all there is on Hibbertia in the book, so you may not need a copy if you're not looking at any other genera.)

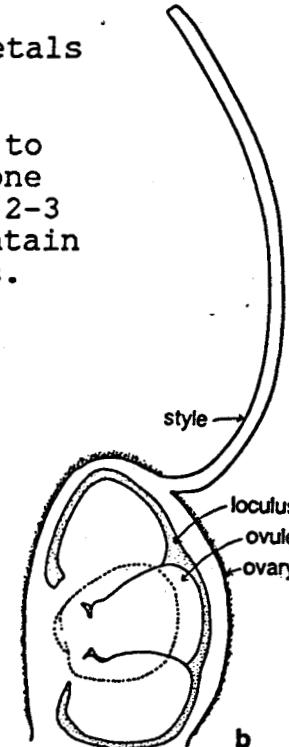
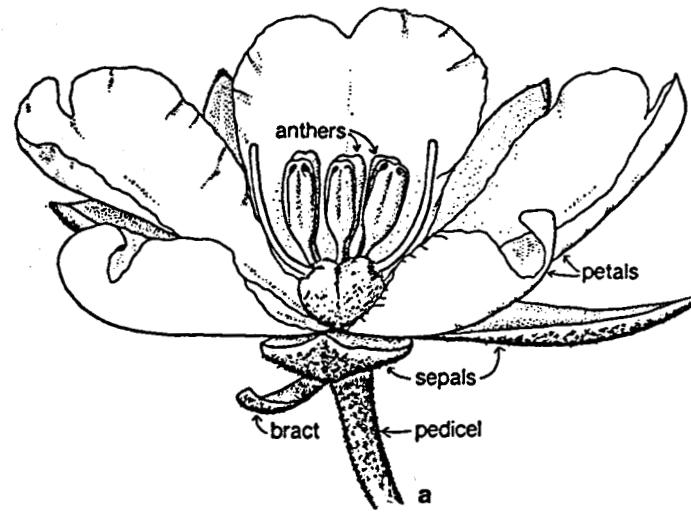
The botanical terms used in the extract are explained in the glossary on the next page (itself extracted from the comprehensive glossary in the book).

DILLENIACEAE guinea flowers

This family of trees, shrubs and climbers is almost entirely tropical. The type genus *Dillenia* is found in northern Australia and extends to South-east Asia.

In southern Australia the genus *Hibbertia* (guinea flower) is widespread and the bright yellow flowers, that are characteristic of the family, make them conspicuous components of heathland and forests.

The flowers of *Hibbertia* are usually regular and bisexual. There are 5 persistent sepals. The 5 petals are often crumpled in bud, and may fall soon after anthesis. The few to numerous stamens are free or partly united at the base, and some may be reduced to staminodes. They are either in a single group on one side of the carpels or in a ring around them. The 2-3 carpels are free, often with curved styles, and contain 1-many ovules. The fruit is a cluster of follicles.



longitudinal section carpel,
placentation marginal

Hibbertia stricta (guinea flower) Dilleniaceae

5 sepals free; 5 petals free; 6 stamens free; 2 carpels free, ovary superior.

Erect shrub to about 50cm tall. Leaves linear-oblong, to 8mm long, often with stellate hairs, margins revolute, apex obtuse. Inner surfaces of sepals shiny, outer surfaces with stellate hairs. Widespread in southern Victoria and also recorded in South Australia. Flowering in spring. Listed in A Handbook to Plants in Victoria Vol. 2 by J.H. Willis (Melbourne University Press 1972) as *H. australis*. (a x7, b x25)

GLOSSARY

Angiosperms	a division of the plant kingdom - the so-called flowering plants.
anther	the pollen-bearing part of a stamen.
anthesis	the opening of a flower bud.
bisexual	bearing both male and female sex organs.
bract	a modified, often reduced, leaf associated with buds.
calyx	the outermost whorl of the flower parts; the sepals collectively.
carpel	the unit of the gynoecium made up of ovary, style and stigma.
embryo	the rudimentary plant within a seed.
filament	the stalk of an anther.
follicle	a dry fruit, containing one to many seeds, derived from a flower with a single carpel and splitting along one side at maturity. The pericarp is hard and tough, or leathery.
gynoecium	the female part of a flower, consisting of one or more free or united carpels.
linear	long and narrow.
lobe	the free upper part of organs fused at the base, e.g. calyx lobe.
loculus	a chamber or cavity, e.g. within an ovary.
marginal	of placentation, the ovules attached along one side of the ovary.
oblong	a shape, e.g. of a leaf - where length is two or three times width and sides roughly parallel.
obtuse	rounded or blunt.
ovary	the hollow portion at the base of a carpel containing one or more ovules.
ovules	structures in the ovary, which enclose the egg-cells and become seeds after fertilization.
papillae	small rounded projections (adjective papillose).
pedicel	the stalk of an individual flower.
perianth	the outer, non-reproductive part of the flower; usually consisting of a whorl of sepals and/or a whorl of petals.
pericarp	the fruit wall, developed from the ovary wall.
petal	a member of the inner whorl of perianth parts.
placenta	the tissue within the ovary to which the ovules are attached.
placentation	the arrangement of placentas within the ovary.
pollen	the collective name for the pollen grains that develop within the anther. The grains contain the male reproductive nuclei.
regular	of flowers that are radially symmetrical.
revolute	rolled under, e.g. of leaf margins.
seed	the reproductive unit of a plant, the product of a fertilized ovule and containing an embryo with food reserves.
sepal	a unit of the calyx, or outer perianth whorl, commonly green in colour.
stamen	the male reproductive organ of the Angiosperms consisting of a stalk or filament and a bilobed anther.
staminode	a sterile stamen, usually of modified structure.
stellate	star-like, used to describe the tuft of hairs arising from a central point.
stigma	the receptive surface on the style on which pollen can germinate, often papillose and sticky.
style	the section of a carpel or gynoecium between the ovary and the stigma.
whorl	several organs arising from the same level around an axis, such as a whorl of sepals or petals, or leaves.

GUINEA FLOWER GAZETTE COLUMN

Norm Cornwell

"The beauty of our sweet wild flowers,
 dazzle me with their radiant glow,
 but the wonderful plants with exceptional powers
 I see, is how the way hibbertias grow."

Pardon me being poetical, but I get like that when I fall in love with something. But why hibbertias? What have these plants got to offer, comparing them with mallee eucalypts, banksias, grevilleas and even hakeas. All these plants have such various flower, fruit and leaf formations. They also have a vast range of colours in their blooms which are usually good for cut flowers.

With the exception of a few hibbertias, most of them are yellow (others being orange, coppery red or occasionally white). To a novice such as myself, the flowers look the same on all plants

with some species having larger blooms. Apart from the brown star-like calyx which contains the fruit seen on *Hibbertia cuneiformis* (Cutleaf Guinea Flower), there doesn't seem to be anything exciting about hibbertia fruits at all. Even though their leaf structures vary, with most species it is not greatly noticeable.



day. However they do have attracting powers, which to me is the yellow shades of their blooms, which make other coloured flowering plants more conspicuous. The small heathland species go unnoticed when not in flower as they blend in with the surrounding vegetation, but once they come out in bloom, what a lovely sight it is.

Put it this way, isn't roast lamb tastier with mint sauce on it? Aren't potato chips more appetizing with a little salt or vinegar? How bland strawberries are to eat without cream. Yes - I do believe I picked the right study group to be in as I feel the bush (or your garden) would not be the same if these lovely plants were not in existence.

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SECOND HIBBERTIA STUDY GROUP MEETING

Minutes prepared by Ross Field.

The Hibbertia Study Group's second meeting, held at the home of Norm and Jill Cornwell, Cheltenham on 9 November 1991. Eight members attended: Faye Candy, Norm Cornwell, Kerry Davis, Ross Field (Chairperson), Anne Kerr, John Knight, Helen Morrow and Ron Pearson. No apologies were received.

1. Hibbertia collections - a letter to be written each to Garden Advisory Committee, Karwarra and Superintendent Parks and Gardens, Moorabbin (Cheltenham Park) confirming our interest in establishing a collection in the respective garden and park. John Knight can supply propagation bags for potting on plants for Karwarra and Cheltenham Park.
2. Seed Bank - Ron Pearson volunteered to be curator for the seed bank. Ron and Faye Candy will both examine seed lists from commercial suppliers with a view to recommending possible purchases at next meeting. Any members with seed they wish to donate to the seed bank may communicate direct with Ron.
3. Pressed flowering specimen collection - Anne Kerr volunteered to look after our collection. Anne will write some notes for the Newsletter explaining how to collect and dry your specimens, what information to record, etc. All Hibbertia specimens from the National Herbarium, Melbourne, are currently in Adelaide with Dr Helmut Toelken who is working on a revision of the genus. It was suggested that we should make contact with Dr Toelken.
4. Botany - it was suggested that the section on Hibbertia in Name That Flower by Ian Clarke and Helen Lee should be included in the Newsletter.
5. Meetings - the next meeting is to be a propagation day at Karwarra Garden. John Knight will organise pots and media and look after cuttings in the facilities on site. Proposed meeting dates for 1992 (tentative): 8 February (Karwarra); 9 May; 8 August; 14 November (venues to be rotated).
6. Slide collection - Anne Kerr, John Knight and Helen Morrow offered to investigate what slides they already have of hibbertias in their own collections. The Study Group could then pay for duplicates of the best of these. Helen may also have prints of some species. All members with a photographic bent are encouraged to build up a personal collection, the best of these can be used to develop audio-visual presentations and display materials as well as for illustrating articles for publication.
7. Special interests - Barbara Buchanan: Tall-growing Species; Ross Field: Victorian Species; John Knight: Qld/NSW Forest Species (large leaved species). Anyone else?
8. Newsletter - Deadline for next issue is 15 January 1992.
9. Botanical Key - it was suggested that we work on a botanical key for all species - i.e. merge the keys presently existing for each State. A winter meeting could be set aside for the purpose of studying keys. It would be desirable that the key be as simple as possible so that all members may use it. Would anyone care to work on such a project?
10. Flowering times - it was suggested that we could provide a form for members to record the flowering times of each species. This will be included with a future Newsletter.
11. Field trips - John Knight suggested that we might conduct field trips to such areas as the Otways, the Grampians, Mt Arapiles, Wilsons Promontory, etc. Herbarium records could be used to plan a trip.
12. Vegetation map - Herbarium records might also be used to build a vegetation map. Our own observations can then be used to improve the map.

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SECOND HIBBERTIA STUDY GROUP MEETING (continued)

A discussion took place on pronunciation of botanical names, particularly Hibbertia. An article on the subject will be prepared for the Newsletter.

The next Study Group meeting is to be held at Karwarra Garden, behind Kalorama Memorial Reserve, Mt Dandenong Tourist Road, Kalorama (Melway map 120 B.9) on Saturday, 8 February 1992, at 2.00pm.

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The meeting was followed by a very pleasant afternoon tea courtesy of Jill and Norm, my thanks go to them both for opening up their home to us. We then retired to Cheltenham Park for an inspection of the proposed site for our collection and a brief tour.

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