

ASSOCIATION OF SOCIETIES FOR GROWING AUSTRALIAN PLANTS

HIBISCUS AND RELATED GENERA STUDY GROUP

OCTOBER 2003

NEWSLETTER NO 2

ISSN : 1448 – 1448

The time has arrived for Newsletter No. 2

A big welcome to all those who have joined our “Study Group”. Let’s hope that we can cover a wide range of subjects and find something of interest for everybody. Presently I feel a bit isolated, but hopefully this will change as time goes by. Six weeks of illness prevented me from attending the SGAP Annual Flower Show at the Brisbane Botanic Gardens, nor could I attend the Spring Plant Sale at Mt. Gravatt on 25th October.

During spring next year, I would like to organize an excursion through the Sunshine Coast area to view Australian Hibiscus in bloom in their natural habitat as well as Botanic Gardens at Tanawha and Cooroy. Lunch could be arranged at the Fairhill Native Plant Nursery and Botanic Gardens. Sightings of **H splendens**, **H divaricatus**, **H heterophyllus** and **H diversifolius** would be guaranteed as well as many interesting, naturally occurring inter-species hybrids.

Spring 2003 has been a strange season with some Hibiscus beginning to bloom as early as May, thence the very hot, dry weather in September. Since early September to near the end of October my “Pink Ice” has averaged 40 to 60 blooms per day, the bush being 2 m x 2 m. The hot weather also saw the arrival of Cotton Harlequin beetles, Harlequin Bugs and Metallic Flea Beetles in huge numbers. Catching them by hand proved to be a losing battle necessitating a spray with insecticide late in the day as the heat and light subsided. Imidacloprid was effective for the bugs and Diazinon for the beetles.

Study Group members, David and Olive Hockings, have not long returned from wandering through Cape York, even reaching Thursday Island. As if this wasn’t enough, they then spent some time in the Carnarvon Gorge area. Their Hibiscus observations seem to have been considerable, so let’s hope that we will hear all about it in the next Newsletter.

If members have something that they would like to contribute to our Newsletter, please do so. I suppose we will be horticulturally orientated in the main, but much attention must be given to the many aspects of practical gardening. I think that Australian Hibiscus must be brought into cultivation where-ever possible if they are going to survive in the long term. In order to best achieve this we must select the best of the best and continue to improve our cultivars through a breeding programme. Everybody can be involved and share in the excitement of breeding new varieties, or growing the seed available through this ‘Group’.

In many parts of Australia, (the exception being the coldest parts) some representatives of the

Malvaceae Family can be grown and enjoyed. In Central Australia e.g. Alice Springs, collecting and breeding the many sub-species of **Hibiscus sturtii** or the Genus **Gossypium** could be lots of fun..

In Townsville, Cairns or Darwin for example, the huge range of tropical **Malvaceae** could be grown. I am struggling to grow some of them here on the Sunshine Coast of Qld. and often wish that I was located in Townsville. Likewise I struggle to grow **Alyogyne** in this humid coastal environment and concede that sub-coastal localities or preferably Adelaide or Perth would be ideal. Of course we can't be in all these localities, but the next best thing will be to share your experiences from where-ever you reside, through this Newsletter.

Lyn Craven from the Herbarium, CSIRO plant Industry, Canberra has kindly commented as follows on the SG's aims as proposed in the Newsletter No1.

1. tick
- 2 qualified tick. The Australian Virtual Herbarium project will do part of this once it is completed, and such things as the WA Florabase do it now. I'd save my strength I think and let others do this.
3. tick, but BGs are sometimes averse to getting selected forms – to some of their staff, the more scrummy the better, and they are often negative about things that are useful and worth cultivation.
- 4 double tick
- 5 double tick
- 6 triple tick. This is so much fun, even though they don't know it, it is something that everybody can participate in.
- 7 triple tick
- 8 triple tick
- 9 tick
- 10 tick
- 11 no to a herbarium (insects get into mallows in a big way, and what general use could be made of it anyway. Better perhaps for people collecting seed, cuttings etc in the wild to lodge specimens with their relevant state herbarium or better still with the national herbarium in Canberra (this is where I work, so I'm a little biased. Maybe specimens at both local state herbarium and the national herbarium), but double tick to a photographic record (both hard copy and electronic --- the latter could go to Stewart's Malvaceae gallery. A very good model of a web site is that dedicated to vireya rhododendrons, see this URL <http://www.vireya.net/>
- 12 tick

Thank you very much for this, Lyn. Consequently we may drop the herbarium idea (see 11) and in its place assess and describe cultivars for registration with the "Australian Cultivar Registration Authority" in accordance with the International Code of Nomenclature for Cultivated Plants. Nothing seems to have been done for Hibiscus and Related Genera, although

there are several Hibiscus and Alyogyne in particular being sold under cultivar names e.g. Hibiscus "Pink Ice", Apricot Mist etc and Alyogyne "Patricia Noble", "Montburg Purple" etc.

Colleen Keena in an e-mail communication dated July 1, 2003 brought up the suggestion that our "Study Group" could use a page on their Web-site being somewhat similar to Web references <http://www.botany.hawaii.edu/faculty/carr/hibiscus.htm> The Keenas have offered to host the page to be set up by their son (webmaster). If members of the SG think that this should be investigated further, please let me know and of course thanks to Colleen and Geoff for the idea.

Forms of **Hibiscus heterophyllus**

In the different places I have visited the variations in **H. heterophyllus** never cease to amaze, although isolated populations have no doubt self-pollinated for long periods of time and one could expect characteristics to vary. A few days ago I visited some dry creek-beds in Upper Kadanga, near Gmypyie where bushes to 4 meters tall had particularly long narrow lobed leaves. The same species near the coast is usually a low sprawling shrub, whilst those in forested gullies of the hinterland grow as trees reaching 7 m tall, where good sunlight can penetrate. In Ilkley Rd. near Palmwoods on the Sunshine Coast, is a large flowered form, the diameter reaching 18 cm with a dark red petal stripe 1.5 cm wide. The plant has huge palmate leaves near the base, which can reach 22 cm in length.

Do you know of any interesting **H. heterophyllus**? If so we would like to hear about them and perhaps add something to our gene pool for future breeding. Apart from the usual white, there are yellow and pink flowered examples. A yellow from near Mackay has intense colour and good petal substance..The large very showy pink collected by SG members Jan Glazebrook and Denis Cox near Rockhampton and called "Rosie" is illustrated on the next page.

The genus ^A**abelmoschus** Medic

Horticultural books on the whole totally ignore this genus or just offer a passing mention. The genus occurs from India, through S/E Asia to Papua New Guinea and Northern Australia.

The trade routes from S/E Asia, particularly Indonesia, to Northern Australia, over the centuries in search of beche-de-mer in particular, probably had an influence upon the distribution of **Abelmoschus**. Other plants introduced or traded eastwards include dwarf coconuts from Malaysia and of course **Hibiscus rosa-sinensis**. The plants in question undoubtedly had medicinal, food value or multiple uses such as the strong **Hibiscus** fiber, still in use to this very day .

This small genus contains at least 6 species : **Abelmoschus moschatus Medic.**, **A. manihot (L) Medic.**, **A. esculentus (L) Moench**, **A. ficulneus (L) Wight & Arn.**, **A. citrinus Wall** and **A. angulosus**.

Of the sub-species found in Australia (1) mention is made of **Abelmoschus manihot (L) Medic. Subsp. Manihot Borssum Waalkes, J. van (1966) 14(1):97.**
Abelmoschus manihot subsp. Tetraphyllus (Hornem.) Borss. Waalkes.



Abelmoschus moschatus Subsp. moschatus Borss. Waalkes

Abelmoschus moschatus Subsp. tuberosus (Span) Borss. Waalkes.

Abelmoschus moschatus Medik. Subsp. biakensis (Hochr.) Borss. Waalkes. (2)

Abelmoschus manihot (L) Medic

Some of my work in Papua New Guinea involved indigenous crops. This important green vegetable was present in most native gardens going by the name of 'Aibica' It exists in many forms, usually a shrub to 1.5 m tall, though sometimes as a virtual creeper requiring support. It was eaten by expatriates in Papua New Guinea as it was a primary source of a locally grown green vegetable. The main objection was the high mucilage content, becoming very greasy once cooked.

The young leaves containing a very high protein content, were usually boiled in coconut milk or water. Harvesting was commenced a few months after growing from seed or stem cuttings and continued over 1 or 2 seasons.

A. manihot is not uncommon in Queensland, being grown by Pacific Islanders, Asians and a few Europeans, mainly as a food source but also as an ornamental.

The English common name is 'Sunset Hibiscus' or 'Sunset Musk-mallow' Considered to be of tropical Asian origin, this plant has long been grown in the Torres Strait Islands and the "Top End" of the Northern Territory.

Selections grown as ornamentals are sold under the name "Sunset Hibiscus" and "Cream Cups". The usually yellow blooms are 10 to 12 cm across. The 3 to 7 lobed leaves can be 45 cm across. Plants flower quickly in the first year from seed and will re-grow from the crown in the second year where the minimum temperature is not less than – 6 degrees C. (Your SG leader has seed available if a stamp addressed envelope is provided)

Abelmoschus moschatus Medic

Known as Musk mallow, Melanesian mallow, Musk okra etc. It is found in India through S/E Asia to North Western Australia and Papua New Guinea. The subsp. **tetraphyllus** is found in far north Queensland, whilst the subsp. **tuberosus** is found from Wide Bay northwards to Cape York, Papua New Guinea the Northern Territory and W.A. The subsp. **biakensis** is found in northern Western Australia, Papua New Guinea, Irian Jaya- (Western New Guinea) and Malesia and is known as 'New Guinea Musk Mallow'. (3)

A form of **A. moschatus**, yellow flowered with a crimson center, known as Muskdana or Ambrette is grown in India for its scented seed and the aromatic oil is extracted for export. Parts of the plant are used as valuable traditional medicines in India. (4)

The seed company "Thomson and Morgan", sold the seed of an ornamental form of **Abelmoschus moschatus** under the name of "Mischief", origin unknown, and this plant has become confused with the subspecies **tuberosus**. "Mischief" has deep pink flowers with a white to yellow eyezone, whilst **tuberosus** has a 13 cm watermelon pink bloom with a darker pink eyezone. David Hockings and others inform me that **tuberosus** in north Queensland can be found in variable colours such as white and yellow. The plants shoot from an underground tuber upon the arrival of the wet season and may spread in a prostrate form for as much as 2 m **Abelmoschus moschatus** is used as a vegetable

in much the same way as **A. esculentus**. An essential oil obtained from the plant is used to flavour baked goods, ice cream, sweets and soft drinks..

One would think that the species of **Abelmoschus** occurring in northern Australia may warrant further investigation botanically and to determine possible uses for food and medicines as well as ornamental.

Abelmoschus esculentus

Known as okra, gumbo, lady's-finger etc. This annual has a long history of being grown as a food crop in Africa, India as well as the U.S.A. It is the large, green, erect capsule to 13 cm that is known as gumbo. These capsules are used in soups, stews and can be dried for out of season use. An important cultivated crop in parts of the U.S.A. with named cultivars such as "Emerald" and "Spineless", okra is quite often grown by Asians and Islanders in Queensland and was quite frequently seen in Papua New Guinea, where it was regarded as an introduced vegetable. This heat-loving plant is not Australian, but may well be encountered in the tropical north or sub-tropics to northern N.S.W.

Abelmoschus ficulneus

This species is widespread in tropical Qld., W.A., and the N.T. It occurs in India, S/E Asia and Papua New Guinea. In the Ord River cultivation areas it is a common weed with white, sometimes pink flowers and a red petal blotch. A tall woody plant to 1.5 m. tall with lobed leaves, it thrives after summer rains in disturbed areas such as roadsides and edges of irrigation ditches.

During my trip to the Kimberleys in W.A. last year, near the walking track to Lennard Gorge, I found a population of totally prostrate **A. ficulneus**, which could have ornamental potential. Plants grew quite well for me at Buderim, even flowering as late as June, before becoming dormant. The shrub, **A. ficulneus** has been reported in cotton cultivation at Emerald, Qld., therefore we need to treat this potential weed with caution.

References

- (1) Aust. Plant Name Index
- (2) Florabase, the Western Australia Flora
- (3) Sorting Abelmoschus Names- Multilingual Maltscript Plant Name Database.
- (4) Muskdama or Ambrette pankaj.oudhia@usa.netwww.celestine-india.com/pankajoudhia

Attached please find a Malvaceae Index for SGAP Volumes 1 to 18

A seed list has been prepared for the next Newsletter due Feb 2004, however any requests for the list or seed will be welcome. Stamp, addressed envelope required, please.

MALVACEAE INDEX AUSTRALIAN PLANTS REFERENCE
SGAP VOLUMES 1 TO 18

- Abutilon** – (30 spp in Australia)
 auritum 3:342C 7:122D **leucopertum** 7:327CD **oxycarpum** 12:179C
- Abelmoschus** 7 spp. In genus.
 moschatus 4:197CDP,232C 7:4C,80CD,81P
- Alyogyne** 3:302CD 4:16DP
 cuneiformis 4:17D 5:199C
 hakeaefolia syn *Cienfugosa hakeaefolia* 1/6:20 3:58,299C 4:16DP, 20CD,162C
 5:89C,90C,199C,308C 7:122D 8:157P, 166CD 12:6C
 huegelii 3:58D, 299C 4:19CD 5:89CD,91C,213C 12:184C **pinonianus** 10:49P
- Gossypium** syn. *Notoxyinlon*
 australe 2:215D 3:302D,303D,313D,315D,317D 7:268P 13:110D
 bickii 2:215D 3:303D, 314D, 316D, 317D 7:268D 13:110D
 costulatum 3:314D, 316D, 318D
 cunninghamii 3:314D, 316D, 318D
 hirsutum 3:303D
 populifolium 3:314D, 316D,317D, 312D
 pulchellum 3:314D, 316D, 317D, 318D
 robinsonii 2:219 3:313D, 315D
 sturtianum syn. *Cienfuegosia gossypioides*.
 2:214D 3:299C, 301DP, 302D, 313D, 314D, 318D 4:20CD 5:89C, 90C, 213C 7:122D, 268D,
 270D, 292D, 300P, 318D, 331D 8:74C, 259D, 264D 11:166C 13:99D, 102D, 108P, 109D,
 114C
- Hibiscus**
 divaricatus 16:269C
 diversifolius 3:342C 4:245DP 5:170D 7:122D 8:74C
 farragei now *Radyera farragei*
 goldsworthii 2:219D
 heterophyllus 4:20CD, 245D 5:170D 7:122P 8:74D ‘Aureus’ 6:105CDP
 huegelii see *Alogyne huegelii*.
 meraukensis 4:198CD
 normanii 4:198C
 panduriformis 2:219D 4:162
 rhodopetalus – see *Abelmoschus moschatus*
 splendens 4:20CD, 244DP 6:104CDP 7:122
 sturtii 4:19CD 8:259D, 264D
 tiliaceus 3:219CDP, 220P 4:284CDP 8:66C, 71C, 74D, 118CD 12:219CD 13:291C 16:195C,
 274C
 trionum 7:122D
 ‘Wirruna’ 6: 105CDP
- Howittia trilocularis** 4: 19CD, 63CDX, 92CDP 11: 303CD
- Lagunaria patersonii** 2:55C, 203C 3:272CDP 5:85C 6:236CDP, 186D 13:58C
- Lavatera plebeia** 4: 19CD 8:264D
- Lawrencia glomerata** 8:264D
- Malvastrum spicatum** 8: 264D
- Pavonia hastata** ½: 5D 3:342C 4:173 CDP 7: 122C 8:136CD 12:179C
- Radyera farragei** 7:269P
- Sida**
 corrugata 8:258D, 264D

intricata 8:264D
petrophila 4:119CD 8:259D, 264D
Thespesia lampas 3:366D, 369D

2

populneoides syn macrophylla 3:366CD, 368P 4: 20D
Urena lobata 4: 98CD

The best references are in bold type.

The letter D following the page number indicates that this reference relates to a description of the plant or its natural occurrence.

The letter C refers to cultivation details.

The letter P indicates a colour photograph.

The letter L indicates a line drawing.

The letter X gives propagation advice.

8: 352 means volume 8, page 352.

The following genera and species do not appear in Australian Plants volumes 1 to 18 :-

Anoda cristata
Decaschistia peninsularis
Herissantia crispa
Macrostelia grandifolia
Macrostelia grandifolia subsp. Macilwraithensis
Macrostelia sp. (Bolt Head P.I. Forster PIF 8937)
Malva australiana
Malvastrum chillagoensis
Thespesia populnea
Urena armitiana

In addition to the above there are many species of Hibiscus, Sida, Abutilon etc that have not as yet been covered by articles in Australian Plants.