

## AUSTRALIAN NATIVE PLANT SOCIETY(AUSTRALIA)

### HIBISCUS AND RELATED GENERA STUDY GROUP

OCTOBER 2010 NEWSLETTER NO 21 : ISSN 1488-1488.

The image below is from our Study Group spring meeting on 26/9/2010. John Birbeck told us of his early collecting days with Keith Williams who produced a marvellous series of books titled 'Native Plants Queensland'. They discovered a purple *Hibiscus diversifolius* on the Atherton Tablelands and John waded into the crater lakes to make the collection. The delightful young lady is John's daughter Alessandra telling us about the metallic flea beetle that feeds on Hibiscus leaves. The damage can be quite severe on native plants including the 'Norfolk Island Hibiscus' – *Lagunara* and the exotic *Hibiscus rosa sinensis*.

John was with Keith Williams when they recorded the populations of Hibiscus hybrids at a railway siding known as 'Glen Geddes' north of Rockhampton.



# The face behind the names:

## Part 1 – Lyn Craven



Plant names  
with Rob Cross and Roger Spencer

**P**LANT name changes are made by taxonomic botanists, and it is not surprising that several of Australia's most outstanding taxonomic botanists began their careers in gardening and horticulture.

We thought that, from time to time, we could tell you about these people, and put a face to the work they do – starting with the work of Lyn Craven.

Lyn Craven, a principal research scientist with the Australian National Herbarium in Canberra, as a child enjoyed helping his father in the garden, later propagating and wholesaling plants with him.

He started out growing a range of hibiscus, his scientific leaning coming out when he crossed the pink Australian species *H. splendens* and a yellow form of *H. heterophyllum* to produce an attractive seedling selection 'Wirruna', a cultivar released in 1971 that is still in cultivation.

Soon after leaving school, Lyn took up a position with the CSIRO in Canberra giving botanical support to land resource surveys in Papua New Guinea.

As he was already cultivating several species of New Guinean vireya rhododendrons (one of his favourite genera), this was a way for him to become more familiar with the plants of this region.

In Papua New Guinea, Lyn saw and collected his first two rhododendrons from the wild, *R. loranthiflorum* and *R. luraluense*.

Being fascinated with plant diversity and names, he revelled in the opportunity to collect herbarium specimens in the field (he has travelled extremely widely in Australia collecting specimens for his studies) and then work on the specimens in the CSIRO herbarium. Australia has only two native rhododendrons, the first, *Rhododendron lochiaec* being described by Ferdinand von Mueller, the second, *Rhododendron viriosum*, described by Lyn Craven in 2002.

A few years later, Lyn returned to Melbourne and studied horticulture at Burnley Horticultural College before rejoining the CSIRO in his old Canberra position in 1971.

Lyn's interest in taxonomy increased with time, his first publications being on New Guinean plantains, *Plantago*, Northern Australian *Calytrix*, and New Guinean *Syzygium*, the group then known as *Acmena*. This launched his productive career in taxonomy.

After being awarded an MSc from Macquarie University, professional promotion was possible.

Within CSIRO he progressed from laboratory technician grade 1 (on junior pay rates) to principal research scientist, writing



Lyn Craven with a vireya rhododendron.

some 150 scientific papers, including many revisionary papers of lasting value, and enjoying mentoring a number of postgraduate students in plant systematics.

Genera familiar to gardeners that Lyn has worked on include Native Cherry *Syzygium*, Paperbark *Melaleuca*, Hibiscus, and Rhododendron.

Others perhaps have less familiar names like *Homalium*, Starflower *Calytrix*, Heliotrope *Heliotropium*, Pachynema and the cotton genus *Gossypium*. Definitive accounts of several of these genera have been published.

Lyn draws on both morphological and DNA evidence in his work and believes that, wisely applied, the new DNA tools have much to offer taxonomy.

Lyn says: "I often work with collaborators as I have found that there are synergies in working on a project with others; in systematics, two or more brains are usually better than one as they can synthesise several "generational perspectives" into the one paper, thereby saving several decades".

He is also well aware of the consequences of name changes for plant users: "Perhaps because of my interest in gardening, and economic botany in general, I have always attempted to minimise the renaming of species.

"A broadly defined genus results in greater

nomenclatural stability than if it were to be broken into many small genera.

"There are those who seek to emphasise the differences between plant species rather than the similarities; this I think is not helpful as it usually leads to a whole lot of weakly defined genera being inflicted on user groups.

"Within a broadly defined genus, those interested in the relationships between closely related complexes of species can re-arrange the complexes in the various subgenera and sections without "changing the names".

"Once initial fragmentation has taken place, morphological differences between what may genetically be very closely related groups of species become even more obvious, leading to further splitting."

He gives the following example:

"Hibiscus, *Abelmoschus*, *Urena*, *Malva-viscus* and *Pavonia* are more closely related to each other than they are to *Abutilon*, *Gossypium* or *Lagunaria* and in my view it makes sense to merge the former group of genera into one (ie., into *Hibiscus*) than to attempt to separate many more, weakly defined, genera from *Hibiscus*."

It seems that although plant taxonomy is an objective science, your background can still have some influence on your work "style".

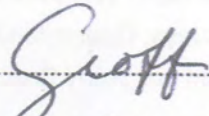
We wish Lyn many more years of satisfying work studying the Australian flora.

Re-printed with kind permission from Australian Horticulture, Lyn Craven's profile appears on the previous page.

Recent member Greg McDonald has been thoroughly hooked on wild Hibiscus and has been scouring the bushland between The Town of 1770 and Proserpine. He has come up with some interesting finds that we will hear more about in future issues of the Study Group Newsletter.

Enjoy the Newsletter.

With best wishes,

  
.....  
(Geoff Harvey)

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The time has arrived when Newsletter No 21 needs to be done.

There is always plenty happening in the Study Group with almost daily emails to and from members, some in far off places such as Alison Fraser in Mt. Isa Qld., Christopher Brown in Glen Forrest, Western Australia and Gil Bujanda in California U.S.A. How did we communicate, frequently and effectively in the days of snail mail? Well! We were using telegrams not that long ago. Our latest members are Stephen Baker of Bunya, Queensland and Gil from California. A big welcome to you both and we do hope that you find our Study Group of special interest.

Peter Bevan has just arrived back from a trip to far north Queensland where he may have met up with some of our members and seen some interesting Hibiscus. I may get a report from him before this N.L. is completed.

Our spring 'Get-Together' was held on the 26<sup>th</sup> September at my Buderim residence with 14 people present. Unfortunately the date coincided with SGAP activities, Jan Sked and others being otherwise committed. We missed keen member Fred Westerman (away on holidays) and Brian Kerr with work requiring to be done at home.

We are still working with seed, plants and information collected on our field trips. The species collected from site 73 (see page 3 of N.L. No 20) turned out to be *Melhania oblongifolia* that belongs to the Malvaceae Family with a common name of Velvet Hibiscus ref. 'Pasture Plants of north-west Queensland by Jenny Milson, a DPI Qld. Govt. Publication. Thanks also to Lyn Craven for identifying this plant.

At site 79 just west of Doomagee up in the Gulf of Carpentaria, the trailing Hibiscus with small pink flowers and a dark red petal spot turned out to be the allusive *Hibiscus geranoides* – see write-up further on in this News Letter.

A lady from Ravenshoe, Glenys Johnson (an SGAP member) found a strange Hibiscus section Furcaria north of Charters Towers with pale lemon flowers and red mottling or spots on leaves and the young seed capsules. It doesn't have lobed leaves ( as does *Hibiscus meraukensis*) and is probably an annual growing to about 1.5 m tall. Doug McDonald of Mackay has found the same plant near Gibson Creek Bridge between Mackay and Proserpine. Seed from Greg planted on 28/9/10 commenced germinating the following day, Wednesday 29/9/10. Seed from Glenys Johnson also germinated quickly and have been potted on from the communal seedling container. It appears that the Study Group is creating more interest in Hibiscus and more surprises will ~~be~~ eventuate as time goes by.

**Hibiscus Oxalate Analysis :** Results are not yet to hand.

**Spring Get-Together :** After meeting up for the past three seasons, this event seems to be most worth-while. **Any suggestions for next year's venue and a date would be appreciated.** Colleen Keena gave us a marvellous presentation introducing many of her wonderful hybrid seedlings. Let's hope they become more popular with gardeners and widely available. Your Study Group Leader and

David Hockings spoke about some of the species encountered on field trips and John Birbeck about early collecting days with Keith Williams.

**Subscriptions for 2010-2011 :** Thanks to those who have paid. A few are still outstanding. The Study Group has no income apart from the subscriptions and the occasional donation. We are continuing with hard copies of the Newsletter due to popular demand and the large number of images – not suitable for emailing.

**New Newsletter Name :** A change from ASGAP to 'Australian Native Plant Society (Australia) brings our Study Group in line with the Federal Executive.

**Website :** A new domain for the ANPSA Website is operational. The new Address is <http://anpsa.org.au> Hibiscus is : <http://anpsa.org.au/hibiscus> Brian Walters who is Webmaster for the Australian Native Plant Society (Australia) wants our Study Group to consider a makeover for our Website. This was briefly discussed at our 'Get-Together' with the agreement that your Leader look into this matter.

**Hibiscus Species and Seed Bank :** After three extended field trips and numerous shorter ones, we now have quite an extensive seed bank. Though numerous requests for seed have been met, I feel that we should be contacting Regional Botanical Gardens to try and get species growing in localities that best suits the plants - that is arid zone, dry monsoonal, the wet tropics and so forth. This was discussed at our meeting and I think John Birbeck will attempt to compile a list of addresses where we can commence to communicate.

With native species and hybrids being sold through nurseries and plant sales , these will no doubt become established outside their normal areas of distribution and hybridize with local species and varieties. If Regional Botanical Gardens blessed with dedicated staff agree to conserve species known to occur in their general localities, vegetative propagation would be necessary to keep the species genetically pure.

**Contributions from Study Group Members :** Any news item however trivial would be of interest and perhaps add significantly to our knowledge of the Malvaceae Family in Australia. I am ready and willing at all times to respond by email or letter. It is not a good situation if the Study Group Leader is required to write most of the Newsletter content. It is desirable that we operate as an open group with plenty of communication.

Images cannot be found for several of the 70 or so Hibiscus species found in Australia. Most of these occur in tropical Western Australia and the Northern Territory where at this stage we don't have contacts.

**Line of Succession for Study Group Leader :** We wouldn't want our Study Group to fall into recess should the present Leader be unable to continue. Perhaps we should look for a deputy now rather than later when the time arrives. Any ideas please?

**Publications :** A lot of knowledge has been acquired by our senior members and I feel that it is highly desirable to permanently record this in some form of publication. To get the ball rolling, I have made a list of Australian Hibiscus and Gossypiums to be included in this Newsletter.

**FIELD TRIP UP-DATE :**

One of our priorities was to try and find *Hibiscus geranoides* Cunn. ex Benth. and we felt that we needed to be well west of Doomagee in the western Gulf of Carpentaria to be successful. Road closure prevented us from driving much past Doomagee, but at site 79 latitude 17.55.467 Longitude 138.45.626 we found a few trailing plants as illustrated below :



Eventually Lyn Craven identified them as *Hibiscus geranoides*. This species is recorded mainly from islands in the Gulf and the northern parts of Western Australia and the Northern Territory. The long narrow leaves confused us as they are not geranium-like as the name would indicate. Seed was scarce so David Hockings decided to try some cuttings, one of which is still alive as of 1/10/10. I planted the few seed collected and was surprised to have one germinate. Hopefully the plant will mature and provide more seed.

Total confusion exists in that the South African species *Hibiscus pedunculatus* has been widely grown in N.S.W. and Queensland believing it to be the native *Hibiscus geranoides*. Incorrect identification still appears on the internet.

In March 1999 Queensland botanist, Paul Forster wrote an article for SGAP which appears below :

***Hibiscus pedunculatus* (Malvaceae)  
-an imposter from South Africa-**

**Paul J. Forster**

**Queensland Herbarium**

For some years an attractive, low-growing (less than 50 cm high), pink flowering species of *Hibiscus* has been marketed and exchanged by a number of native plant enthusiasts, particularly in south-eastern Queensland. This plant has been labelled as *Hibiscus geranoides* and considered to be an Australian native, although information as to its provenance has not been forthcoming. It is now a reasonably common plant in gardens featuring native plants and is a useful understorey filler in many situations.

*Hibiscus geranoides* was described by George Bentham in 1863 in the 'Flora Australiensis', based on specimens collected by the famous botanists, Robert Brown and Allan Cunningham. Their respective collections came from the Gulf of Carpentaria in the Northern Territory and Vansittart's Bay in Western Australia. The true *H. geranoides* is a somewhat weedy appearing small bush to about 50 cm high with not particularly attractive flowers and is not uncommon on the islands of the Northern Territory and Western Australia.

Unfortunately, what is being called *H. geranoides* in horticulture is not that species. This leaves the problem of what the name should be and whether or not it is an Australian native.

It was, therefore, somewhat a surprise to find the same plant in question when perusing the plantings in the Kirstenbosch National Botanic Gardens at Cape Town in South Africa in August 1998. These particular specimens were not labelled, however, reference to a number of books on South African wildflowers (e.g. Hulme 1954, Batten and Bokelmann 1966) soon produced an identification of *H. pedunculatus* L. f.

*Hibiscus pedunculatus* is quite widespread in South Africa and is found from the Eastern Cape through to the northern provinces, where it grows in riverine forest or on hillsides (Harvey 1859; Retief & Herman 1997). The species was first collected by K.P. Thunberg in 1773 and later named by Linnaeus' son. Hulme (1954) stated that the bark was used for thatching and tying cross-sticks in huts and that an infusion from the leaves and stems was used to cure urinary complaints.

The same beauty that has captured Australian plant collectors also enthused John Bellenden Ker in an 1817 issue of "Edward's Botanical Register" to write "*Hibiscus*

*pedunculatus* long-stalked Cape Hibiscus ..... forms a very ornamental green-house-plant, and blossoms freely about July. The beauty of its large rose-coloured flowers is greatly enhanced by the dusky green of the foliage."

Native plant purists may now conduct a pogrom aimed at this species. However, hopefully others with a more tolerant view will appreciate the plant for what it is – a worthwhile addition to Australian gardens. It is always prudent to forward a fertile specimen to the Queensland Herbarium for identification.

#### References :

Batten A. & Bokelmann. H. (1966). Wildflowers of the Eastern Cape Province. Books of Africa : Cape Town Bellenden Ker. J. (1877). *Hibiscus pedunculatus* Long Stalked Cape Hibiscus, Edward's Botanical Register 3:t. 231.

Harvey, W.H. (1859). Malvaceae . Flora Capensis Vol. 1, 157-177. Hodges et al /A.S. Robinson Dublin/Capetown.

Hulme, M. (1954). Wildflowers of Natal . Shuter & Shuter : Pietermaritzburg.

Retief, E. & Herman, P.P.J. (1997). Plants of the northern provinces of South Africa : Keys and diagnostic characters. National Botanical Institute: Pretoria.

.....  
I like to keep a few plants of the hardy *Hibiscus pedunculatus* and the image below was taken at Buderim on 6/10/10.





### COMPARASON OF CALYCES 3 HIBISCUS SECTION FURCARIA FROM QUEENSLAND

#### *Hibiscus splendens* variety ? from Atkinson Rd. Capricornia

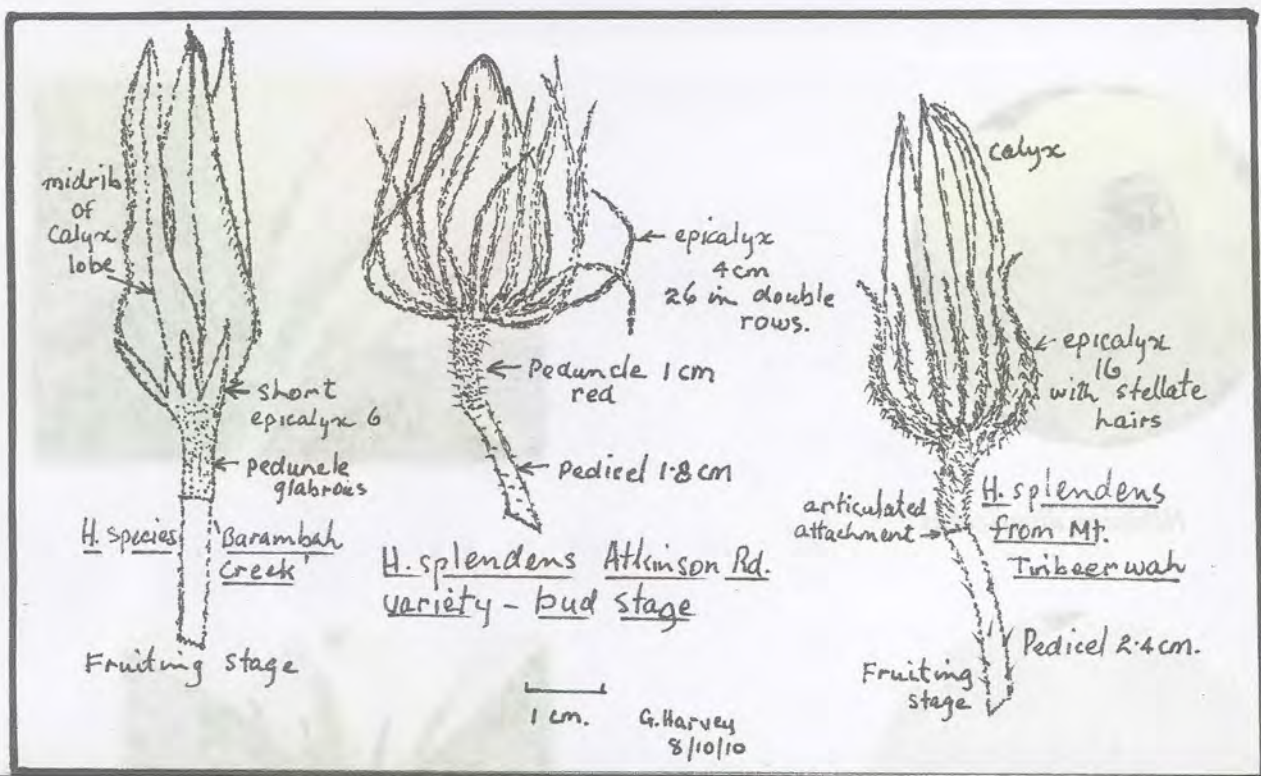
Flowers : pale pink, variable .Epicalyx : 26;24;28;26 – Average 26. Bends over the bud during development stages. Epicalyx length : 4 cm with colourless stellate hairs. Calyx : 3.8 cm;3cm;3cm;3.2cm – Average 3.25 cm Red in colour, ribs darker. Pedicel : 1.8 to 2 cm, minute colourless hairs.

#### *Hibiscus* species 'Barambah Creek' from the Burnett District of Queensland

Flowers : Large medium pink. Epicalyx : 6;6;6;6. Average six, very short and broad at base – see illustration. Epicalyx length : .9 to 1.2 cm Peduncle : light brown, glabrous, 1 cm or less. Calyx : 3.5 to 4.2 cm. The unopened buds are distinctly pointed due to the long calyx .Pedicel : 1.8 cm glabrous.

#### *Hibiscus splendens* from Mt. Tinbeerwah, Sunshine Coast.

Flowers : deeper pink, very heavy bloomer with peak during October at Buderim. Epicalyx : 15;18;16;15 – Average 16. Long colourless stellate hairs. Epicalyx length : 2.1 cm. Peduncle : 1 to 1.3 cm light brown with colourless stellate hairs. Calyx : 3.5 cm red with darker ribs. Calyx enlarges during last two days before bud opens. Pedicel : About 2.4 cm average with some prickles.



Images from Colleen and Geoff Keena on the next page compares the calyces of *H. splendens*, *H. divaricatus*, *H. meraukensis* and *H. heterophyllus*.

9.



*Hibiscus heterophyllus*



*Hibiscus splendens*



*Hibiscus divaricatus*



*Hibiscus meraukensis*



The Edinburgh New Philosophical Journal, Vol. 9, 1830, page 170.

Description of Several New or Rare Plants which have lately flowered in the neighbourhood of Edinburgh, and chiefly in the Royal Botanic Garden. By Dr GRAHAM, Professor of Botany, in the University of Edinburgh, page 170 ff.

Hibiscus splendens.

*H. splendens*; frutex, aculeis rectis, base tuberculatis; corolla expansa, extrorsum costis pluribus flexuosis tomentosis; calyce 5-fido, laciniis acutis, 3-nerviis, carinatis; involucre multipartite, laciniis lineari-subulatis, interdum ramosis, calyce paulo brevioribus; pedunculo supra medium oblique articulato; foliis palmatis, 3-5-lobatis, lobis lanceolatis.

*H. splendens*, Fraser, MS.

DESCRIPTION—*Stem* woody (in our flowering specimen 10 feet high), erect, round. *Bark* every where green, covered with short stellate pubescence, interspersed with short, spreading, nearly straight aculei, arising from large callous bases, which are red on the young parts of the plant. *Branches* axillary, woody, scattered, ascending, round. *Leaves* (C-7 inches long, C broad,) spreading, palmate, 3-5-lobed, light green, reticulated, thickly covered with rather harsh, stellate, unbranched pubescence on both sides; lobes lanceolate, unequally serrated; ribs and veins prominent, and aculeate below. *Petioles* (3-5 inches long) nearly as long as the leaves, slightly flattened above, filled with pith, which is continued into the ribs of the leaves. *Stipules* (1 inch long) green, subulate, linear, unconnected with the petioles, pubescent on the outside. *Peduncle* solitary, single-flowered, longer than the petiole from the axil of which it springs, and resembling it, filled with pith, obliquely articulated and bent about three-fourths of an inch from the calyx. *Involucrum* (about 1 inch long) green, divided to its base into many linear-subulate segments which are occasionally branched, smooth on the inside, covered on the outside with long, harsh, simple, spreading hairs, arising from glandular bases. *Calyx* yellow, deeply 5-cleft, rather longer than the involucre, densely covered with softer shorter hairs on the outside, smooth within; segments tapering, 3-nerved, two of the nerves lateral, the other forming a strong keel. *Corolla* (in our flowers 3 inches long by 6 inches across when expanded) rose coloured; petals with many colourless flexuose nerves prominent on the outside, and there especially pubescent, connected to each other and to the lower part of the united filaments near their base, white towards their lower part, each having two dense tufts of dark red wool on the inside of its callous base, within a large obcordate, slightly orange coloured spot, having a dark rose coloured margin. In the entire flower, the margin forms a continuous line round the centre, inclosing a space about half an inch in diameter, and 5 tufts of red wool produced by the confluence in pairs of the tufts on the petals. *Stamens* numerous, united filaments at the lower part pale, above rose coloured; anthers dark crimson, arranged in a pyramidal form; pollen granules very large and spherical. *Style* projecting beyond the stamens, as is usual in the genus, but much shorter than the petals, supporting 5 deep red hairy round stigmas. *Germen* covered with erect silky hairs, quinquelocular; ovules numerous, attached to the central receptacle, and arranged in two rows in each locu.. *lament*. *Seeds* ash coloured, wrinkled, warted, and angular. This noble plant was raised, I believe, in various collections, from New Holland seeds sent by Mr Fraser in November 1828; but I am not aware that it has flowered anywhere before the present month (May 1830), when it blossomed in the stove of the Royal Botanic Garden, Edinburgh. Its only fault, as a cultivated plant, is its great size; but in its native situation, it must present a most brilliant appearance, Mr Fraser writes of it, " This I consider the king of all the Australian plants which I have seen. I have it 22 feet in height. The flowers this season measured 9 inches across, were of the most delicate pink and crimson, and literally covered the plant."

## A CHECKLIST OF AUSTRALIAN MALVACEAE SPECIES

### GOSSYPIUM GENUS :

The *Gossypium* Genus is distributed in tropical and sub-tropical regions of the Americas (18 species), Australia (17 species), Africa and the Middle East (15 species).

The Australian species are :

*Gossypium australe* F. Muell section *Hibiscoidea*

*Gossypium bickii* Prokh. section *Hibiscoidea*

*Gossypium costulatum* Tod. section *Grandicalyx*

*Gossypium cunninghamii* Tod. section *Grandicalyx*

*Gossypium enthyle* Fryx. Described 1992 section *Grandicalyx*

*Gossypium exiguum* Fryx. Described 1992 section *Grandicalyx*

*Gossypium londonderriensis* Fryx. Described 1992 section *Grandicalyx*

*Gossypium merchantii* Fryx. Described 1992 section *Grandicalyx*

*Gossypium nelsonii* Fryx. Described 1974 section *Hibiscoidea*

*Gossypium nobile* Fryx. Described 1992 section *Grandicalyx*

*Gossypium pilosum* Fryx. Described 1974 section *Grandicalyx*

*Gossypium populifolium* (Benth.) F. Muell section *Grandicalyx*

*Gossypium pulchellum* (C.A. Gard.) Fryx. section *Grandicalyx*

*Gossypium robinsonii* F. Muell section *Sturtia*

*Gossypium rotundifolium* Fryx. described 1992 section *Sturtia*

*Gossypium sturtianum* J.H. Willis section *Sturtia*

*Gossypium sturtianum* variety *sturtianum* section *Sturtia*

*Gossypium sturtianum* variety *nandewarensis* (Derera) Fryx.

The Australian *Gossypium* species are distant relatives of the cultivated tetraploid cottons and their diploid progenitors.

Both *Gossypium hirsutum* and *Gossypium barbadense* grow wild as naturalised or feral populations in northern tropical Australia, particularly along coastal rivers and beaches. Botanist P. Fryxell speculates that these 'primitive' cottons lacking the modern 'breeding' of commercial cottons may have been introduced by ocean currents from the Americas. Study Group Member, David Hockings recently photographed *Gossypium hirsutum* at the back of a beach in Temple Bay north-east of Weipa on Cape York Peninsula – (identification was confirmed by Paul Fryxell, Research Geneticist from Texas U.S.A.)

### **HIBISCUS SECTION TRICHLOSPERNUM**

N.B. the PANDURIFORMIS complex in Australia was revised in 2005 and now comprises 8 species as follows :

*Hibiscus brennanii* Craven and Fryxell from the wet monsoonal 'top end' of the N. T. An attractive pink-flowered species superficially similar to the pink-flowered Hibiscus section *Furcaria* species that are so common in the sandstone country of the N.T.

*Hibiscus panduriformis* Burm. f. Qld. and N.T. Seen on field trips in the Burdekin Irrigation Area as well as monsoonal country in the Burke pastoral area.

*Hibiscus astrinus* Juswara & Craven variety *astrinus*. W.A. and N.T.

*Hibiscus apodus* Juswara & Craven W.A.

*Hibiscus calciola* Juswara & Craven W.A.

*Hibiscus fluvialis* Juswara and Craven Qld. N.T. and W.A. Seen along alluvial stream banks during the 2010 field trip in the monsoonal Gulf Country.

*Hibiscus multilobatus* Juswara & Craven N.T.

*Hibiscus austrinus* variety *occidentalis* Juswara & Craven.

### **HIBISCUS SECTION PTEROCARPUS**

*Hibiscus vitifolius* L. Collected north of Bowen on our field trips. Easily grown in containers.

**HIBISCUS SECTION BOMBICELLA**

*Hibiscus brachychlaenus* F. Muell Qld. W.A. N.T.

*Hibiscus brachysiphonius* F. Meell Qld. W.A. N.T. N.S.W.

*Hibiscus burtonii* Bailey Qld. W.A. N.T. N.S.W.

*Hibiscus coatesii* F. Muell Qld. W.A.

*Hibiscus cravenii* N.T.

*Hibiscus drummondii* Turcz. Coastal areas of Geraldton and Coolgardie District of W.A.

*Hibiscus geranoides* Cunn ex Benth Occurs western Gulf of Queensland N.T. and W.A. Often confused in cultivation with *Hibiscus pedunculatus*, a species from South Africa.

*Hibiscus krichauffianus* F. Muell Qld. N.S.W. N.T. W.A. S.A.

*Hibiscus leptocladus* Qld. N.T. W.A.

*Hibiscus peralbus* Fryxell North Kimberly region W.A.

*Hibiscus phyllochlaenus* F. Muell A dwarf shrub from north-east Qld. with white or sometimes yellow flowers.

*Hibiscus setulosus* F. Muell From northern parts of Qld. N.T. and W.A.

*Hibiscus solanifolius* F. Muell An arid zone plant from W.A. N.T. and Qld.

*Hibiscus insularis* From Philip Island off Norfolk Island

*Hibiscus sturtii* Hook

*Hibiscus sturtii* Hook var *sturtii* Qld. N.S.W. N.T.

*Hibiscus sturtii* var *campylochlamys* Benth W.A.

*Hibiscus sturtii* var *forrestii* F. Muell W.A.

*Hibiscus sturtii* var *grandiflorus* Benth N.T. W.A. N.S.W. Qld.

*Hibiscus sturtii* var *muelleri* Benth

*Hibiscus sturtii* var *platychlamys* W.A. N.T. Qld.

*Hibiscus sturtii* var *truncates* Fryxell N.T. W.A.

*Hibiscus sturtii* var *Meentheena* (S. van Leeuwen 4589)

N.B. The following three species were formerly species of *Macrostelia*

*Hibiscus tozerensis* Craven and B.E. Pfeil

*Hibiscus macilwraithensis* (Fryxell) Craven & B.E. Pfeil

*Hibiscus propulsator* Craven & B.E. Pfeil

*Hibiscus species* (Emerald S.L. Everist 2124)

*Hibiscus species* Fraser No 1 ( 172,307,325) Mt. Isa Region

*Hibiscus species* Fraser No 2 (274, 381, 392) Mt. Isa Region

*Hibiscus species* 'Poddy Creek' (Hockings/Harvey site 89) Boulia/Winton Road.

### **HIBISCUS SECTION AZANZAE**

*Hibiscus tiliaceus* L. Qld. N.S.W. W.A. N.T. N.B. A new genus **talipariti** was created but not generally accepted due to subsequent DNA sequencing.

### **HIBISCUS SECTION KETMIA**

*Hibiscus pentaphyllus* Africa, India and Northern Australia. A bi-annual plant that grows well in containers.

### **HIBISCUS SECTION SPATULA**

*Hibiscus normanii* F. Muell An uncommon species from north/eastern Queensland

### **HIBISCUS SECTION SOLANDRA**

*Hibiscus lobatus* (J.A. Murray) Kuntze N.T.

### **HIBISCUS SECTION TRIONUM**

*Hibiscus trionum* L. var. *trionum* Qld. N.S.W. S.A. W.A. N.T.

*Hibiscus trionum* L. var. *versicarius* Hochr. Very common in northern Queensland. N.S.W. N.T. W.A.

### **HIBISCUS SECTION VENUSTI**

*Hibiscus mutabilis* L, Naturalised in Qld. and N.T.

## HIBISCUS SECTION FURCARIA

*Hibiscus acetosella* Welw ex hiern Appears to be naturalised in central coastal areas of Queensland. An attractive red foliated plant that is best grown as an annual. Leaves can be used in cooking and as a salad ingredient. Originating in Africa it is widespread in warm climates of the world.

*Hibiscus aneute* Craven, F. D. Wilson & Fryxell. Described in 2003. Occurs Alligator River region of the N.T.

*Hibiscus aphelus* Craven, F.D. Wilson & Fryxell. Occurs in the eastern Kimberley region of W.A.

*Hibiscus arnhemensis* F. D. Wilson Widespread in Arnhem Land N.T.

*Hibiscus bacalusius* Craven, F.D. Wilson & Fryxell. Described in 2003 from the middle Daly River Region N.T.

*Hibiscus byrnesii* F.D. Wilson. Comes from the northern parts of the N.T.

*H. divaricatus* Graham Occurs from the wide Bay District of Qld. and inland to as far as the Dividing Range.

*Hibiscus diversifolius* Jacq. Qld. N.S.W. and W.A. A purple flowered variant comes from the crater lakes in Atherton Tablelands.

*Hibiscus fallax* Craven, F.D. Wilson & Fryxell Described in 2003. N.T.

*Hibiscus forsteri* F.D. Wilson. Described as a new species in 1995. Occurs from Townsville north into Cape York Peninsula. It may comprise as many as three species.

*Hibiscus fryxellii* Mabb W.A. N.T.

*Hibiscus fryxelli* Mabb var. *fryxellii* W.A.

*Hibiscus fryxellii* var *mollis* Craven, F.D. Wilson & Fryxell Described in 2003. Occurs in W.A. and the far west of the N.T.

*Hibiscus heterophyllus* Vent Qld and N.S.W.

*Hibiscus heterophyllus* subsp. *Heterophyllus*. This name used in N.S.W. is probably invalid.

*Hibiscus inimicus* Craven, F.D. Wilson & Fryxell Described in 2003. N.T.

*Hibiscus kenneallyi* Craven, F.D. Wilson & Fryxell. Described in 2003. W.A.



- Hibiscus marenitensis* Craven, F.D. Wilson & Fryxell Described in 2003. W.A.
- Hibiscus menzeliae* F.D. Wilson & Byrnes. N.T.
- Hibiscus meraukensis* Hochr. A variable species from tropical Qld. N.T. and W.A.
- Hibiscus minutibracteolus* F.D. Wilson. Northern Kimberley Region of W.A.
- Hibiscus petherickii*. Craven, F.D. Wilson & Fryxell Described in 2003 N.T.
- Hibiscus reflexus*. Craven, F.D. Wilson & Fryxell. Described in 2003. N.T.
- Hibiscus riceae*. Craven, F.D. Wilson & Fryxell. Described in 2003. N.T.
- Hibiscus sabdariffa* (Rosella) Naturalised in tropical northern Australia.
- Hibiscus saponarius* Craven Described in 1995. Occurs Cape York Qld.
- Hibiscus splendens* C. Fraser ex Graham. Very showy, variable species. Qld. N.S.W.
- Hibiscus radiates* Cav. Naturalised in coastal Qld.
- Hibiscus squarrulosus* Craven. F.D. Wilson & Fryxell. Described in 2003. W.A.
- Hibiscus stewartii* Craven, F.D. Wilson & Fryxell. Described in 2003. W.A.
- Hibiscus superbus*. C. Gardener W.A.
- Hibiscus symonii* F.D. Wilson and Byrnes. N.T.
- Hibiscus thegaleus* Craven, F.D. Wilson & Fryxell. Described in 2003. N.T.
- Hibiscus zonatus* F. Muell. N.T. and Qld.
- Hibiscus species* (Barambah Creek P. Grimshaw + P.G. 2484) A recently discovered species.
- Hibiscus species* (Euri Creek, Harvey field trip site 18(b)).
- Hibiscus species* collected Glenys Johnston, Ravenshoe North Queensland. Pressed specimens have been sent to CSIRO Canberra for taxonomic study – (Sept. 2010)

### **OTHER SPECIES NOT YET DESCRIBED**

- Hibiscus species* A Kimberley Flora (E.A. Chesterfield 310)
- Hibiscus species* B Kimberley Flora (P.G. Wilson 11143)
- Hibiscus species* C Kimberley Flora (K.F. Kenneally 10979)

Some trivia for the final page. A friend sent me an email , the subject matter being "**LARGEST FLOWER IN THE WORLD.**" It is *Amorphophallus titanum* (Araceae), also called "cadaverous flower". It has the peculiarity of blooming only during three days every 40 years. The two meter high flower is 2 meters high and weighs in at 75 kilos. Images were taken in RBlanco the town of Veracruz, Mexico.



*Amorphophallus titanum* (Araceae), also called "cadaverous flower" has the peculiarity of blooming only during three days every 40 years, a privilege that Mother Nature bestowed on this town in Veracruz .