

AUSTRALIAN NATIVE PLANT SOCIETY

HIBISCUS AND RELATED GENERA STUDY GROUP

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A feature of this Newsletter is the Hibiscus species *Hibiscus sturtii* with its 8 varieties covering most of the continent, especially the dry inland parts. The botanical descriptions have been included thus enabling you to make identifications in your area and to let us know what treasures you find. I feel this is important as our knowledge is rather lacking to say the least.

Correction : In previous newsletters I have used the name *Malva australiana* for the Australian Hollyhock, when it should have been *Malva preissiana* Miq. This species was formerly known as *Lavatera plebeia*.

In previous issues extensive profiles have remembered Paul Fryxell and Lyn Craven both Malvaceae experts with many authoritative taxonomic publications. It is now time to recognise the huge contribution made by Colleen Keena, not forgetting her husband Geoff with his marvellous images of Hibiscus that can be enjoyed on the Web and past issues of this Newsletter. In attempting to make people aware and popularise our native Hibiscus, her time and effort since 1975 has followed her passion with enthusiasm and perseverance. Just have a look at her Website www.hibiscus.org and the content of our past newsletters to appreciate her massive contribution. She has covered every aspect including cultural, medicinal, food source and hybridising.

Our spring meeting on 29/9/12 – A big thank you to Bev Kapernick for hosting this meeting at Gympie. In all 14 people were present, 11 being members of the Study Group including Trevor Bacon. who joined on the day. Most of our members live in far off places, so perhaps we should try and find ways for them to be involved. Requesting agenda items prior to the meeting may be the answer. We enjoyed a great BBQ lunch and walk around Bev's garden that included several species of Hibiscus and a number of Colleen Keena's hybrids. They were flowering well and much admired by all.



Admiring Bev's garden



Enjoying lunch - Images Trevor Bacon

Your Study Group Leader covered a number of issues including the discovery of a yellow Hibiscus in the Sundown National Park well to the west of the Dividing Range. This has subsequently been seen and written up in our Field Trip report included in this newsletter.

A highlight of the day was Dr. Dion Harrison's talk on his breeding programme at the U.Q., Gatton Campus and his release of three new hybrids out for commercial release through his work's company – "Aussie Colours". Dion will give details of this in the newsletter.

David Hockings also has an attractive cross called 'Banana Smoothie' (see picture below) that he has taken along to plant sales for a number of years. Thanks to Dion, David and Peter Bevan who brought plants along to the meeting.

This interesting day was concluded with a drive that extended as far as the Imbil State Forest. Details of this meeting appear in the Regional Bulletin, vol. 51 No. 3, December 2012.

That time of the year is upon us once again and I conclude by wishing you all a merry Christmas and a happy New Year.

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Hibiscus 'Banana Smoothie',
bred by David Hockings
(Image by Colleen Keena)



SOME INFORMATION ON *HIBISCUS STURTII* HOOK AND VARIETIES

OF THIS SPECIES

Geoff Harvey

Hibiscus sturtii.....Hooker, W. J. (1848)

- (1) *Hibiscus sturtii* variety *sturtii* Bentham, G. (1863)
- (2) *Hibiscus sturtii* variety *campylochlamys* Bentham, G. (1863)
- (3) *Hibiscus sturtii* variety *grandiflorus* Bentham, G. (1863)
- (4) *Hibiscus sturtii* variety *platyklamys* Gentham (1863)
- (5) *Hibiscus sturtii* variety *forrestii* Mueller, F. J. H. von (1883)
- (6) *Hibiscus sturtii* variety *truncatus* Fryxell P. A. (1968)
- (7) *Hibiscus sturtii* variety *muelleri* Bentham G. (1863)
- (8) *Hibiscus sturtii* variety Meentheena (S. van Leeuwen 4589)

Trying to define which variety of *H. sturtii* is which with any certainty has been in my 'too hard basket' for too long. Obviously others who write about this species have the same problem as they tend to generalise with the name *H. sturtii* to cover all and use mixed images. One variety or another is found in all states except Victoria and Tasmania. It is generally confined to the arid or semi-arid inland parts of Australia. The species is easily identified by the epicalyx (involucl) being fused into a cup. Some varieties have a dark petal spot and others do not.

Hibiscus sturtii is very widespread with a huge assortment of flower colours described by botanists including lilac, violet, mauve, pale mauve, pink, bright pink, purple, light purple, pinkish/lavender, reddish pink, red, maroon, lemon yellow and white with yellow margins. All these observations apply to *H. sturtii* var. *sturtii* and gives one itchy feet for more field work to try and find some of the variations. A dedicated plant breeder could have a field day with all this potential. Unfortunately they don't like the coastal humidity of S.E. Queensland and one would need to look at growing them in the drier parts of the Darling Downs, the Burnett Pastoral District at least or further inland.

(1) *Hibiscus sturtii* variety *sturtii*

Found mostly in Queensland and N.S.W. with occasional recordings in the N.T.



This variety has been found near Ipswich in the Lockyer Valley, west of Brisbane being a rather rare find from this sub-coastal locality. The image above right (Ipswich plant) was taken by Geoff Keena and the one on the left by David Hockings near Emerald on our first Field Trip.

The Queensland Herbarium has 3 recordings from the Moreton Pastoral District. *H. sturtii* var. *sturtii* doesn't have a basal petal spot (see images) and the plants are generally less than a meter in height. The common name is 'Hill Hibiscus' as it generally grows on rocky slopes and hill tops.

I saw it in bloom west of Adavale in S.W. Queensland on red sandy soil by the roadside in April 2002. Some of the blooms were pure white and others (about 50%) light pink. This was a very memorable sighting with the fragile flowers standing out against the dry, red ground surface. Plants were only 12 – 14 cm in height. It is reported as common in the drier parts of the Darling Downs. We saw specimen plants at Garulmundi on top of the Dividing Range and old plants from last season exceeding 1.2m in height, appear to be *variety sturtii*. Ipswich is of course east of the Dividing Range in a sub-coastal locality and another population is reported from Moogerah about 60 km south of Ipswich. These populations are disjunct from the western Darling Downs and the rounded epicalyx nodes seem to number 9 whereas 5 is the norm according to the original botanical description. The pedicels are shorter than the petioles, 4-7 mm. Involucel equalling the calyx, 5-8 mm., 5 lobes 1-2 mm.

(2) *Hibiscus sturtii* variety *campylochlamys*.

This variety has a pink or purple bloom with a dark basal spot. The plant height is about .5 m with triangular calyx and epicalyx (involucel) lobes. It occurs mainly in the dry monsoonal regions of north Queensland. Sites where it has been recorded include Hell's Gate, Adele Grove, Hughenden, Cloncurry and Winton.

Fl. Austr. 1 : 217 (1863). Pedicels shorter than petioles, 2-10 mm. Involucel not equalling calyx, 17 – 14 mm., 6-8 toothed; teeth acuminate, 3-8 mm. Calyx deeply 5 – lobed, 13 to 19 mm., lobes 10-12 mm. Petals 20-25 mm., pink or purple with dark basal spot. Fruits 8-12 mm. Study Group Member, Alison Fraser mentioned *Hibiscus sturtii* last year - "as being the most common Hibiscus around Mt. Isa. It grows mostly on stony slopes and hillsides and tends to hide amongst the Spinifex and other grasses ----The cupular epicalyx distinguishes it from similar pink flowered *Bombicellas*". Two of Alison's images showing flowers and fruiting parts of the Mt. Isa variety appear below-



- (3) *Hibiscus sturtii* variety *grandiflorus* This variety is widespread in Western Queensland and the N.T., extending into N.S.W. and Sth. Aust. The main population concentration appears to

be around Alice Springs in the N.T. This is probably the variety illustrated in Ann Urban's Book "Wildflowers and Plants of Inland Australia" on page 117.

Some Queensland localities include Dajarra, Moura, Tambo, Blackall, Windorah, Charleville, St. George, Bollon and Eulo. Botanical description from Fl. Austr. 1 : 216 (1863). Pedicels equalling or exceeding petioles, 10 – 22 mm. Involucel not equalling calyx, 4 – 8 mm., 6 – 10 toothed, teeth triangular, 1 – 2 mm. Calyx 8 – 13 mm., 5 lobed; lobes 3 – 5 mm. Petals 15 – 35 mm., purple with dark basal spot. Fruits 8 – 10 mm.

- (4) ***Hibiscus sturtii* variety *platyklamys*** Found mainly in the N.T. and the Eremaean Province of W.A. Queensland recordings come from Camooweal, Urandangie and the Gregory National Park. The Botanical description from Bot., Geneva 4 : 71 (1900) is as follows : pedicels exceeding petioles, 15 – 50 mm., (rarely shorter). Involucel not equalling calyx, 10 – 22 mm.,
4 – 6 toothed; teeth acuminate, reflexed, 6 -10 mm. Calyx 17 – 25 mm., deeply 5 lobed ; lobes 10 – 15 mm. Petals 25 – 35 mm., pink with a dark basal spot. Fruit 12 – 17 mm. long.
- (5) ***Hibiscus sturtii* variety *forrestii***. Found only in W. A's Eremaean Province, this variety can reach 3 m. in height and has yellow/cream flowers. Though it was named long ago in 1883, there is very little information available and it is completely missing from many publications. It grows on rocky hills and plateaus. No botanical description found. Images can be viewed on the W. A. Herbarium, Florabase.
- (6) ***Hibiscus sturtii* variety *truncatus***. Found in W. A. and the N. T. this variety just reaches into the northern boundary of S.A. The pedicels are shorter than the petioles, 3 – 6 mm. Involucel somewhat shorter than the calyx, 6 – 10 mm., truncate or sub-truncate. Calyx 9 mm., 5 lobed; lobes 2 – 3 mm. Petals 15 mm., pink, without a dark basal spot. Fruits 8 – 12 mm.
- (7) ***Hibiscus sturtii* variety *muelleri***. Occurs in N.S.W., S.A. and southern N. T. with not many recordings. Pedicels shorter than petioles, 2 – 10 mm. Involucel not equalling calyx, 4 – 8 mm., 6 – 8 toothed; teeth triangular, 1 – 3 mm. Calyx 5 lobed, 7 - 12 mm., lobes 3 – 5 mm. Petals pink without dark basal spot, 10 – 20 mm. Fruits 8 – 9 mm.
- (8) ***Hibiscus sturtii* variety *Meetheena***. Confined to W. A's Pilbara region, this variety has not yet been botanically described.



The image of this variety was taken near the Communication Tower at Mt. Isa Qld.



This specimen found near Middleton, western has a huge involucel with many lobes.

Images – G. Harvey

It is hoped that this brief account of an interesting species and its numerous varieties will entice our Study Group members to send in more information and images. We have marvellous potential here for container cultivation in suitable climates away from the coastal humidity.

HIBISCUS
AND RELATED GENERA
FIELD TRIP TO
SOUTH EAST INLAND REGION OF QUEENSLAND
31st October 2012 to 5th November 2012

CONDUCTED BY :

Geoff Harvey and David Hockings

Purpose of the Field Trip (Part 3)

To identify Hibiscus populations for the purpose of seed collecting, now or in the future. The objective is to comply with the Geoff Simmons Bequest whilst continuing to survey parts of Queensland not covered in Part 1 and 2. Funding for the trip was approved and provided through the SGAP Queensland Region.

Timing :

It was felt that the very high rainfall experienced during 2011 and reports of early season storms would auger well for a spring survey. It was expected that a carry-over of old plants from the summer/autumn of 2011 would still yield some seed and the emergence of new Malvaceae plants should be under way.



Hibiscus krichauffianus a sub-shrub species recorded from the survey area – Image D. Hockings

Itinerary Day 1 – 31/10/12

Buderim (Sunshine Coast) to Maleny, Kilcoy, Esk, Gatton, Allora, Stanthorpe and Eukey driving through the Girraween National Park.

Day 2 – (1/11/12)

Stanthorpe to Sundown National Park, Glenlyon Dam, Texas, Inglewood to Goondiwindi.



Lunch-stop at Glenlyon Dam

Day 3 – (2/11/12)

Goondiwindi via the Barwon Highway to St. George thence west past Bollon on the Balonne Highway to near Cunnamulla returning for overnight at St. George.

Day 4 : (3/11/12)

St. George to Roma on the Carnarvon Highway, thence north east to near Taroom; south to Wandoan on the Leichhardt Highway, overnight stop at Miles.

Day 5 : (4/11/12)

Miles, Chinchilla, Durong, Proston, Murgon, Kilkivan, Gympie to the Sunshine Coast.

Some Malvaceae Plants Previously Recorded from the Regions to be Surveyed.

Hibiscus heterophyllus : All areas east of the Dividing Range, especially rocky gullies and edges of bushland.

Hibiscus trionum complex : It was expected that ***Hibiscus tridactylites*** and possibly ***Hibiscus verdcourtii*** would be seen when passing through the Gatton farm lands under irrigation. 2011 flood waters would have transported seed to new localities. In most summer seasons these Hibiscus of the trionum complex are very common in the Lockyer Valley Region near Gatton. Seed is held in our seed bank.

Pavonia hastata : A population was recorded by David Hockings some years ago near Allora.

Hibiscus section Furcaria : Yellow flowered specimens have been recorded from the Sundown National Park.

Queensland Herbarium Records – number of specimens in brackets.

Darling Downs Pastoral District

Hibiscus splendens (1)

Hibiscus sturtii (3) *Hibiscus sturtii* variety *sturtii* (18)

Hibiscus trionum complex – (10)

Hibiscus divaricatus (1)

Hibiscus brachysiphonius – (1)

Malva paviflora – (28)

Pavonia hastata – (19)

Maranoa Pastoral District

Hibiscus brachysiphonius – (12)

Hibiscus species (Emerald S.L. Everist 2124) – (1)

Hibiscus sturtii – (9); *Hibiscus sturtii* var. *sturtii* – (4); *H. sturtii* var. *grandiflorus* – (3)

Hibiscus trionum complex – (4)

Hibiscus krichauffianus – (4)

Malva parviflora – (14) *Gossypium sturtianum* – (1)

Malvaceae Observations and Recordings

- (1) The white flowered form of *Hibiscus heterophyllus* was seen beside the Bruce Highway (right side) .5 km south from the Palmview turn off; along the Steve Irwin Way approaching Landsborough and occasional plants when climbing the Great Divide along the Heifer Road between Gatton and the Clifton turn off on the New England Highway. Seed is easily obtainable as this species is common on the Sunshine Coast.
- (2) *Pavonia hastata*. It is not known how or when this south American species arrived in Australia, as it was apparently here about the time of European settlement. I have previously grown seed obtained from the Carnarvon Gorge Region, from grassed habitats between Durong and Wondai as well as the Brisbane area. This population was found just off the New England Highway, 50 m into Forest Springs road in long grass on the right hand side of the road. The plants about 1.2 m tall, had recently flowered and some mature seed was collected on 31/10/12. Previously seen by David Hockings, he indicated a flower size much larger than what I had seen on other specimens. The GPS reading was 27.58.2573 S – 151.59.972 E and the altitude 484 m This location is of course well west of the Dividing Range and would be a heavy frost area. This plant with its attractive flower may have some potential as an annual in colder climates and can be regarded as indigenous – not endemic.
- (3) The highlight of the field trip was to see the yellow flowered Furcaria section Hibiscus found in the Sundown National Park. The nearest known population to here was seen in the 'Kragra Hills' approx. 26.10 S – 150.29 E. Shown to us in 2002 on a scrubby ridge by Janice Carlyle who owned the property 'Wonga Hills', she informed us that this Hibiscus species was found by her father, Reg. Markwell in the 1920's. This property is approx. 35 km south of the Auburn River National Park, which is accessible by road from Mundubbera. The ridge top where this *Hibiscus divaricatus* occurs is a fenced off National Park Reserve. Occasional specimens of both *Hibiscus heterophyllus* and *Hibiscus divaricatus* are found in the Gayndah/Munduberra Districts. Most of them seem to have disappeared in recent years, however some seed is held in our seed bank. H. sp 'Barambah Creek' was found not far from Gayndah in 1996. The Sundown National Park Hibiscus was found by Peter Hazelgrove, a retired Park Ranger. He had the yellow bloomed Hibiscus identified by the Brisbane Herbarium as *Hibiscus heterophyllus* more than 15 years ago. This was a reasonable identification as the name *Hibiscus heterophyllus* subsp. *luteus* (Hochr.) F.D. Wilson was probably still valid at the time. This taxa was reduced to *Hibiscus divaricatus* in a 29th March 1995 botanical publication titled 'two new species of Hibiscus section Furcaria DC. (Malvaceae) from northern Queensland, F.D. Wilson and L.A. Craven.

Guided by Colin Hockings we walked from the Camping Area on the western side of the park towards a location known as the 'Permanent Water Hole'. A small plant was examined at location 28.54.77 S; 151.35.26 E. Mature plants further within the Park were not accessible to us on the day, but we hope that photographic images may become available at a later date. Being a National Park we did not collect any specimens. Should authorised researches wish to see these plants the contact is Mr. Colin Hockings, P.O. Box 601 Stanthorpe. Queensland, who is a friend of the retired Park Ranger.

This recording is of special interest as the occurrence of *H. divaricatus* species is extremely rare west of the Dividing Range and this far to the south of its normal range. The Park is 250 km south-west of Brisbane via Stanthorpe and 70 km north- west of Tenterfield. Kurrajongs occur throughout the Park and we saw a good population of Eastern Grey Kangaroos when entering the Park. Within the Park deer are present and could be a threat to plants such as Hibiscus. A species of Abutilon with minute flowers was seen at the Camping Area.



Foliage of *H. divaricatus* Sundown National Park

Dried foliage specimens of *H. divaricatus* from 'Wonga Hills' property

The yellow flowers, foliage and seed capsules are typical *Hibiscus divaricatus*.

- (4) The section from Goondiwindi to St. George, Cunnamulla and Roma yielded very little in the way of Malvaceae. Apart from the commercial cotton (*Gossypium hirsutum*) at St. George, some flame trees in various towns and *Brachychiton rupestre*, virtually no small plants were seen, nor were the exotic *H. rosa-sinensis* seen in the town gardens. The reason for the lack of small Malvaceae plants in the field is believed to be the blanket of Buffel grass (*Cenchrus ciliaris*), which had grown luxuriantly during the excessively wet year of 2011. An account of the Buffel grass situation is covered later on in this report.
- (5) ***Brachychiton rupestre***. The use of this elegant, iconic species unique to Queensland is probably at its best in the township of Roma, where it has been widely utilised as a street tree. Also successful in cultivation is the broad leaved ***Brachychiton australis***. These taxa have been transferred from the family Sterculiaceae to Malvaceae.

Fine specimens were seen growing on the better soils near Proston, They are grown successfully in the southern cities such as Sydney, Melbourne and Adelaide where they can be seen in the respective Botanical Gardens. A 'Google' search revealed several plant nurseries offering them for sale and promoting their virtues as container and bonsai specimens.



Brachychiton rupestre growing on grazing land near Proston.

- (6) **Feral Cotton.** Quantities of seed and lint are scattered along the roadside verges in the vicinity of cotton gins and cultivations. Plants are often encountered even with bolls of seed at this time of year. October/November is the planting season and we saw huge irrigated areas south of St. George with emerging plants. Having left the Carnavon Highway some 18 km north of Roma, heading towards Taroom, we found a roadside population of cotton – see image below. This isolated site is far removed from StGeorge and perhaps the seeds were transported from Theodore, north of Taroom where cotton is also grown



(7) *Hibiscus sturtii* - (3/11/12) – (site 94)

Found roadside on the Gurulmundi Road just before the AMCOL sign. This site is along the top of the Dividing Range not far from gas and coal mining activity. The few only plants were 1.2 m in height, nearly dried out with empty seed capsules. No young emerging plants were seen. Though there are a number of *Hibiscus sturtii subspecies*, these plants are considered to be atypically tall. Perhaps plant/flower images can be obtained from Study Group member, Dr. Dion Harrison, who visited the site on an SGAP Field Trip conducted by David Hockings. The location is 26.24.635 S; 150.00.016 E and the altitude 414 m. Some specimen material was collected for herbarium purposes.

(8) *Hibiscus sturtii* – (4/11/12) – (site 95)

Found a few kilometres east of Miles on the Warrego Highway, the location is 26.39.817 S 150.16.072 E at an altitude of 300 m. Young plants were just emerging from the flat, gravelly soil under the shade of acacia scrub with some eucalypts. We could return to this site in late summer 2013 to collect seed along with the previous site – (7).



Hibiscus brachysiphonius from Field Trip No 2
Buffel Grass – (*Conchus ciliaris*)

A thick mat of buffel grass clumps cover most of the inland area of South East Queensland, within the western Darling Downs and Maranoa Pastoral Districts.

It is hard to conceive that the low clumping forms of *Hibiscus sturtii* usually referred to as sub shrubs of about 0.6 m could possibly compete with buffel grass. Less chance of competing would be the prostrate *Hibiscus brachysiphonius* that is a sub shrub with a permanent rootstock. Both are reported to flower from spring to late autumn depending upon rainfall. Previously I have seen *Hibiscus sturtii* growing in bare sandy

soil beside the road near Adavale in south western Queensland where no buffel grass was present at the time. Our searches in likely spots failed to find any sign of plants which if present could be totally concealed by grass.

Extracts from 'Nature Notes' – Buffel grass.

<http://www.alicespringsdesertpark.com.au/kids/nature/planvs/buffel.shtml>

“Buffel grass is an aggressive colonizer which grows vigorously after rain. It takes a lot of nutrients out of the ground and is displacing native grasses and sedges along riverbanks, alluvial flats and moist localities”

“Many people believe buffel grass is a major threat to biodiversity and maintaining a healthy and productive environment. One expert has gone so far as to describe it as the botanical equivalent of the cane toad.”

(1) **Extracts from 'Weed Management Guide' CRC Weed Management ISBN : 978-1-920932:74:9**

“Buffel grass – (*Cenchrus ciliaris*) is an introduced pasture grass that is found across much of the Australian continent, including arid and semi-arid regions. Buffel grass has spread well beyond planted areas and dominates the ground layer in many native plant communities. It reduces native plant diversity and can affect vegetation structure by changing fire regimes.

Whilst some cultivars can grow up to 1.5 m tall, others are less than 1 m tall.

It has proved useful as a pasture grass due to its drought tolerance, high biomass, deep roots, rapid response to summer rains, relative palatability and resistance to overgrazing. Native plants affected by invasion of buffel grass provide a diminished resource for traditional indigenous livelihood including bush food, timber and medicine.

Where buffel grass pasture occurs adjacent to fire-sensitive vegetation it can burn hot enough to carry fire into the remnants, opening up the canopy. The edges are then prone to degradation including by weed invasion. In this way, the area and integrity of habitat can be progressively reduced.

Modelling based on climatic and soil requirements has indicated that 25% of Australia is potentially highly suitable and 43% suitable for buffel grass growth.

New forms of buffel grass may have potential to invade a wider range of habitats. It is easily the most significant weed in many arid and semi arid areas of high value for biodiversity conservation.”

The above is a brief overview of what I see as having a devastating affect on small Malvaceae plants. I would like to hear what other Study Groups have to say about this very serious situation as it affects the plant genera they have under study.

Should we be able to find the seed which is the object of the exercise, there seems to be some urgency to bring these probably endangered species into cultivation.

Botanical gardens in suitable climatic localities where these species can be preserved seems to be a desirable answer. As buffel grass has been very beneficial to pastoralists over a long period, perhaps funding could be sought from that source. To supervise a 'Botanical Garden Project' such as this, dedicated professional people from a university or CSIRO would be the best option.

Seed Collected Other Than Malvaceae.

David Hockings made considerable collecting of what he termed 'special plants'. This helps to fully substantiate our field trip and his list of seed collecting is as follows –

Calytrix gurulumundensis

Calytrix longiflora

Hakea purpurea

Hakea leucoptera

Rhodanthe floribunda

Brunonia australis

Kennedyia procurrens

These seeds will be passed to the seed curator, Kerry Rathie for distribution.



Hibiscus 'Sunshine' (above) and *Hibiscus* 'Dion's Delight' (below) bred by Colleen Keena.
Images - Colleen & Geoff Keena



COLLEEN KEENA, BRISBANE VALLEY, QLD

It is now over sixty years since I was captivated by what has become my favourite native hibiscus, *Hibiscus heterophyllus*. My interest has continued, particularly as I have watched local plants flower profusely for prolonged periods, in spite of drought and then the flooding of recent years. I have given plants to friends in Melbourne and Cairns and seen these plants perform well. I still recall my first glimpses of the large white flowers of *Hibiscus heterophyllus* that lit up the edges of the rainforest as we negotiated precarious tracks on the steep hillsides of the south coast hinterland in NSW while visiting family as a child. Having loved *Hibiscus heterophyllus* for so long, Geoff and I tried to acquire it when establishing a garden in Brisbane in 1975.

Prior to this, we had lived in Papua New Guinea for almost 14 years. Both of us worked in boarding schools, where students grew much of what was eaten. I then spent time in a post-school programme where again students grew much of the food they prepared for lunch each day. We grew to love tropical vegetables and still grow many of them, including favourites such as Aibika, *Abelmoschus manihot* and Rosella, *Hibiscus sabdariffa*. We used the cooked calyces of Rosella as a substitute for sauerkraut and we regularly made cordial from it.



Above: Aibika, Winter 2012



Below: Our first native hibiscus plant, 1975:
Hibiscus divaricatus x *Hibiscus splendens*

It has been a long process tracking down the tropical vegetables we loved in PNG, including Aibika, as well as the native hibiscus that we wanted to grow here. Before we could obtain a plant of *Hibiscus heterophyllus* for our first garden in Brisbane, a friend with a nursery gave us a plant labelled *Hibiscus divaricatus* x *Hibiscus splendens* as it was outgrowing its pot. Initially it was the only native hibiscus in our garden and looked just like *Hibiscus divaricatus*, with the shiny green foliage, beautiful gold blooms (above) and growth typical of this species. In the late 1970s, a seedling appeared underneath. To our amazement, the seedling had grey foliage and pale apricot blooms which were larger than the blooms of the parent. We realized that the label on the parent plant was accurate, in spite of the plant's similarity to its female parent. Our first native hibiscus really was a cross as this first seedling had characteristics of the male parent, *Hibiscus splendens*. This was our first experience of hibiscus hybrids.

We were later able to acquire *Hibiscus heterophyllus*. At last, we had the plant I had wanted for so long. Then we realised there were many plants of *Hibiscus heterophyllus* locally and we learnt to strike cuttings. We seemed to notice more and more native hibiscus and collected different forms of both *Hibiscus heterophyllus*, from NSW and Qld (see below) and of *Hibiscus splendens*, from NSW and Qld. We found different colours of *Hibiscus divaricatus* in Qld.

We ended up with some accidental crosses and became aware that native hibiscus cross readily. Next we realised some of the forms had characteristics we loved but we could not keep these plants alive for long periods. This led to intentional crosses, where we have been able to obtain crosses with desirable features but on plants that could flourish locally. Two crosses for colour are shown here, *Hibiscus* 'Cha's Mist' and 'Hibiscus' 'Gold Haze' and one for cold

tolerance, *Hibiscus* 'Ice Mist'. It must be noted that a seedling cannot be judged accurately until the plant has been grown from a cutting and trialed as a cutting-grown plant.



Hibiscus 'Chal's Mist'
Hibiscus 'Glen Geddes' x *H. heterophyllum* 'Rosie'



Hibiscus 'Gold Haze'
Hibiscus heterophyllum gold x *H. divaricatus*

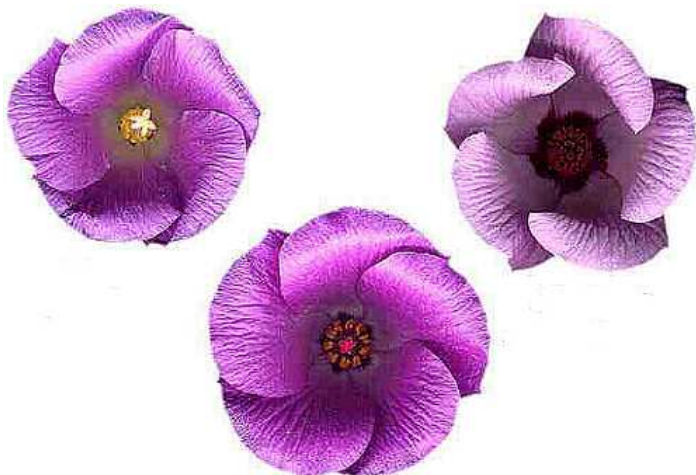


Hibiscus 'Ice Mist'
Hibiscus 'Citrus Mist' x *H. 'Barambah Creek'*



Hibiscus 'Ice Mist' is the centre plant, shown after frost had damaged adjacent plants.

We have also been doing intentional crosses with *Alyogyne*. While *Hibiscus* seedlings usually flower within a year, *Alyogyne* take at least another year, so the process is slower. However, the results are pleasing and given excellent drainage, in our area these plants make a vibrant contribution to the late winter, spring and early summer garden. One of these planned crosses, *Alyogyne* 'Christopher Noble', is shown below, along with scans of its parents.



Seedling *Alyogyne* 'Christopher Noble'

Female parent: *Alyogyne huegelii* species, lilac; Male parent: *Alyogyne huegelii* 'Southern Cross' (pink tulip-shaped)

As well as a focus on Malvaceae, we have established gardens that provide much of what we eat and drink. In the warmer months, we grow tropical crops and in the cooler months, we grow a large variety of vegetables and fruit. We grow and enjoy a variety of Australian native plants (1). For example, we found that, when combined with lemon juice, sugar and water, petals of *Hibiscus heterophyllus* and some of its crosses make a delicious drink, syrup and jam (2).

We still do some intentional crosses but Geoff and I now mainly enjoy the existing species and crosses of a range of Hibiscus and the species and crosses of a range of Alyogyne growing in our garden and shadehouses. Our crosses are both planned and unplanned and provide year round colour. We have found great variation in plants, e.g. in native hibiscus there can be variation in flower size, variation in flower shape and variation in the amount of colour on the margins of the flower and in the colour of the stems and branches, as well as variation in flowering times, resistance to predators and hardness of foliage.

We believe we should be choosing from superior forms and propagating or hybridising from these. Not only will an unattractive plant occupy the same amount of space as one selected for superior characteristics, but poor specimens will hinder acceptance of these wonderful Australian plants. Thankfully, plants are becoming increasingly available in the nursery trade.

We decided to share information we were learning about native hibiscus and our son Jeff assisted us in developing www.hibiscus.org in 1999. The website is currently being expanded: See <http://preview.hibiscus.org/> and [Article Archive - http://preview.hibiscus.org/archive.php](http://preview.hibiscus.org/archive.php)

In this newsletter, Dr Dion Harrison of Aussie Colours will provide information on native hibiscus plants he has been developing.

REFERENCES

1. Eating and Drinking the Garden <http://anpsa.org.au/APOL30/jun03-3.html>
2. Culinary uses of hibiscus <http://www.hibiscus.org/culinary.php>

Hibiscus and Alyogyne can be obtained from 'Pete's Hobby Nursery', Qld, 07 54 261 690 and online from Montburg Gardens <http://www.montburggardens.com.au/Alyogyne.asp>



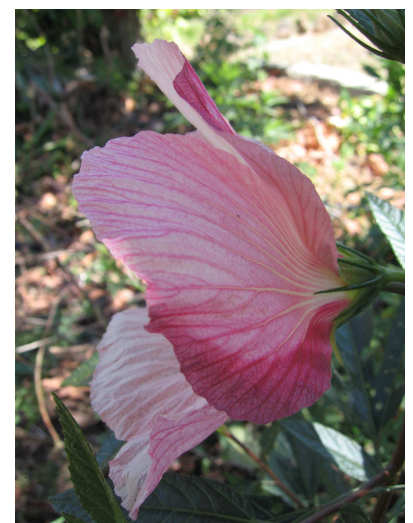
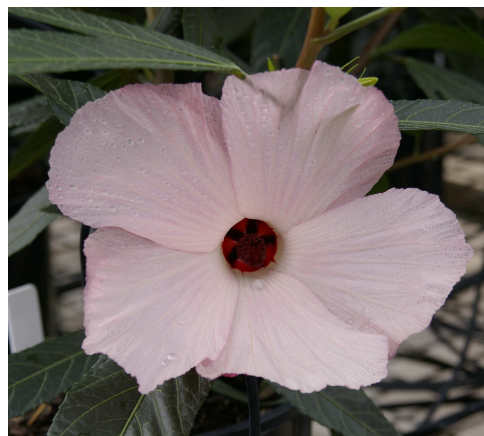
Mt Crosby Cliffs, Qld

Hibiscus heterophyllus collected from:
Warrell Creek, NSW

New Australian Native Hibiscus range released by study group member Dr Dion Harrison.

Since joining the Study Group in 2005, this spring has been quite a milestone for me with my first commercial release of three Native Hibiscus cultivars from my breeding efforts. All are small bushy shrubs to 2 m tall with no or very few prickles. These seedlings were first germinated in January 2007 from my 2006 crosses, and have since been selected and trialled over the last 5 years. With a passion for Native Hibiscus and a job working as a native plant breeding consultant for Aussie Colours Pty Ltd, I have finally convinced the 'powers that be' to release my hibiscus varieties under the Aussie Colours product range. Aussie Colours is a University of Queensland 'spin-off' company that I was involved in setting up. This arose from my early breeding research work with the Centre for Native Floriculture based at the University of Queensland, Gatton Campus, where we released the Outback Princess™ range of *Ptilotus nobilis* cultivars. Aussie Colours' Australian Native Hibiscus range has been made available through independent retail nurseries with a trial run with a large chain store planned for spring next year.

Hibiscus 'Ausie Delight'[®] is a compact shrub to about 2 m tall and produces a prolific display of perfumed light pink flowers to 12 cm from late Winter through to Summer, and flowers sporadically throughout the other times of the year. The blooms contrast well with the attractive glossy dark green foliage and red-brown stems which are also a feature. 'Ausie Delight' is cross between Citrus Haze (*Hibiscus heterophyllus* x *Hibiscus divaricatus*) and *Hibiscus heterophyllus* 'Rosie'. This seedling combines the stunning glossy foliage and compact bushy habit of 'Rosie' with the extended flowering season and pest tolerance of 'Citrus Haze'. It has very few prickles and recent feedback from the Nursery Industry and Horticulture Media personnel has been terrific. In fact, 'Ausie Delight' was released at the 2012 NGIQ Spring Green Expo on the Gold Coast in July this year where it won a Silver Medal in the New Products category despite being up against a range of new cultivars of more traditional garden plants bred by international breeding companies. 'Ausie Delight' can be grown in full sun or part shade, and is capable of handling mild frosts as well as high temperatures and high humidity. Suited to growing in all mainland states of Australia.



Hibiscus 'Aussie Pink'[®] is a prickly free shrub to about 2 m tall and produces a prolific display of perfumed pink flowers to >12 cm in diameter in Spring-Summer in South-East Queensland. The blooms contrast well with the light-green furry foliage. This seedling is a cross between 'Wirruna' x 'Barambah Creek'. I performed the cross in spring of 2006 and planted the seed in January 2007. My aim was to combine the early flower opening and long flowering season of 'Wirruna' with the prickly free stems and foliage of 'Barambah Creek'. Most of the seedlings were very prickly like 'Wirruna', but this one seedling was prickly free so I kept it for further evaluation. While the flowering season is not as long as that of 'Wirruna' as I had hoped, 'Aussie Pink' has a more bushy habit compared to the open habit of 'Barambah Creek'. The leaves are also light green in colour compared to the grey-green foliage of 'Barambah Creek'. 'Aussie Pink' is best grown in Full sun situations with good drainage.



Hibiscus 'Aussie Pearl'[®] is a prickle free shrub to about 2 m tall and produces a prolific display of perfumed white to very pale pink flowers to about 12 cm in diameter in Spring-Summer in South-East Queensland. The blooms contrast well with the dark green foliage and brown stems. This seedling is a cross between a small local form of *H. heterophyllum* x 'Barambah Creek'. I performed the cross in spring of 2006 and planted the seed in January 2007. My aim was to combine the compact bushy habit of the *H. heterophyllum* parent with the prickle free stems and foliage of 'Barambah Creek'. This prickle free seedling was selected as it exhibited good tolerance to the metallic flea beetle and nematodes in addition to its attractive flowers and foliage and basal branching . 'Aussie Pearl' is best grown in full sun situations with good drainage.



In summary, these three cultivars are demonstrating that smaller growing native hibiscus plants, with few if any prickles, are capable of gaining admission to the retail nursery industry. Hopefully these efforts will pave the way for Australian Native Hibiscus cultivars to become a mainstay ornamental product in the Australian Nursery and Garden Industry into the future.

