

**ASSOCIATION OF SOCIETIES FOR
GROWING AUSTRALIAN PLANTS**
HIBISCUS AND RELATED GENERA STUDY GROUP
MARCH 2008 NEWSLETTER NO. 13 :ISSN : 1488-1488



Hibiscus heterophyllus from Etty Bay
south of Innisfail, Far North Queensland

NI 13 P.1

Here it is March, 2008 with Newsletter 13 up and running. We have had a very pronounced wet season here on the coast with extended cool, overcast days. Mealy bug has been prevalent on Hibiscus and I try and leave control to the ladybirds. The metallic flea beetle is another pest of native Hibiscus in particular, eating holes in the leaves. Spraying controls them for about 2 weeks but unfortunately the ladybirds go for a much longer period and the ants farm the mealy bug in gay abandon.

It was hoped to research information on the Australian genus **Alyogyne**, but feel that the information I have is insufficient as yet to do justice to this exercise. It is hard to add to or improve upon the great article in "Australian Plants" June, 2002 Vol. 21, No 171 titled '**Alyogyne – An Update**' as presented by Colleen Keena. Since then Dr. John Conran, Department of Environmental Botany, The university of Adelaide has been very busy with the genus and a number of new species and varieties are listed in the W.A. Florabase <http://florabase.calm.wa.gov.au/search/advanced?genus=alyogyne>.

The Australian Plant Name Index <http://www.anbg.gov.au/egi-bin/apniames> does not as yet list the new **Alyogyne** names and still has **Alyogyne cravenii** Fryxell listed even though it was transferred to **Hibiscus** some time ago.

For our new member Thomas Payne in Canberra, we will do what we can with **Alyogyne** hopefully in Newsletter No 14 due May/June 2008. I am partial to **Alyogyne**s and recently acquired '**Alyogyne huegelii** White Form Australian Beauty' that succumbed to our wet, humid coastal conditions within 10 days. Unfortunately this is my experience with all forms of **Alyogyne**s here on the Sunshine Coast.

We are covering the Australian Hollyhock in the Newsletter, which may interest Thomas as well as others living in colder climates and wishing to grow plants of the Malvaceae Family.

We welcome another new member, Fred Westerman who is well known for growing and breeding Hibiscus of the Lilibiscus Section or what is termed the **Hibiscus rosa-sinensis** complex originating from many species. Fred wishes to breed native **Hibiscus**, particularly cross breeding and creation of tetraploids and triploids. We have suggested the **Hibiscus** Section **Furcaria** as the best group for our local climate. A major consideration in breeding would be to reduce the plant size as space is so restricted in our modern backyards. The front page of this Newsletter depicts a form of native **Hibiscus heterophyllus** collected from ETTY Bay near Innisfail in Far North Queensland. At first I thought it was just another white **H. heterophyllus**, but as can be seen the petal reverse is pink rather than the petal edge banding usual in the southern forms. It blooms late summer/autumn, whereas our local forms flower late winter to early summer. It doesn't seem to be a tall grower and also because of the late blooming, it may be a handy addition to a breeding programme. I find that crosses from the northern and southern **H. heterophyllus** tend to extend the blooming periods considerably. Some seed capsules are semi-ripe which should ensure a supply of seed should they be required by members.

With the Section **Furcaria** in mind, Colleen Keena has provided a most interesting article for this Newsletter. We will follow this up by going into the mechanics of hybridizing and perhaps a look at Dion Harrison's suggestions as follows :

- (1) Breeding Experiences –
 - e.g. interspecies cross compatibilities and incompatibilities.
 - e.g. tips on pollination by hand for different species
 - e.g. inheritance of specific traits such as prickles; hairiness
 - (Perhaps we could get a running discussion on coming up with an evaluation sheet/method for assessing ornamental potential of species, forms and hybrids).
- (2) Field trip observations and reports on distribution of species, forms and hybrids.

Another new member that we welcome is Dr. Stephen Johnson who is a DPI Weed Ecologist based in Orange N.S.W. He is the author of many papers dealing with weedy Malvaceae species and helped considerably with the previous Newsletter that dealt with the genus **Trionum**. Members will probably be aware that the Sunshine Coast and Hinterland Branch of SGAP Qld. Region Inc. formed recently with David Hockings as President. My turn to host a meeting comes around in September and it is suggested that this may be combined with a Hibiscus and Related Genera Field Trip. As the meeting starts at 2 pm followed by a short talk on Hibiscus we could visit places of interest from say 10am to 2pm. If anyone is interested please let me know and I will ask Jan Sked to mention it in the SGAP (Qld. Region) Inc. Bulletin as from the June issue. Jan Sked made my day by having **Abelmoschus moschatus ssp tuberosus** on the front cover of the March 2008 Bulletin with a writ-up on page 12. This is the trailing form, whereas in south-east Queensland it is usually the upright form that is sold in nurseries and at SGAP plant sales. I have growing a white form of **Abelmoschus moschatus ssp tuberosus** originally collected by David Hockings on the northern tip of Cape York Peninsular. It is proving difficult to flower and seed this year whereas previously it was no problem. During winter it dies down to the elongated tuber and can be lost if allowed to get wet during the dormant stage. Perhaps the **Abelmoschus** genus could be an interesting group for breeding.

An SGAP member from Mt. Gravatt, (Pauline Croft) wrote me a letter following the Bulletin Publication looking for seed of **Abelmoschus moschatus ssp tuberosus**. Does anybody have seed to spare of this trailing form. I know that it grows near the water edge of Ross River Resvr. Near Townsville, but we don't have any members in the area that could collect seed. Pauline Croft kindly sent me some seed of an **Abelmoschus** seedling that has cream petals and a peach centre. She states that subsequent generations of this plant still hold the same colour. It will be rather exciting to grow some of these. A seedling **Abelmoschus manihot** came up in my garden a few weeks ago and already has huge yellow blooms almost daily. I couldn't help dusting some pollen of **Abelmoschus moschatus ssp moschatus** onto the stigma pads of the **A.. manihot**. I have rambled along quite a lot, so now let us enjoy Colleen Keena's article and some news of the Australian Hollyhock.

Best wishes,



(Geoff Harvey)
S.G. Leader



Hibiscus
splendens

Queensland,
N.S.W.
Australia



C & G Keena, 2008

Hibiscus Section Furcaria: Crosses, To Be or Not To Be

Colleen and Geoff Keena, Glamorgan Vale, Qld.



INTRODUCTION

It is now well over fifty years since I was captivated by my favourite native hibiscus, *Hibiscus heterophyllus*. My interest in this species has continued, particularly as I have watched locally occurring plants flowering profusely for prolonged periods, in spite of the extended drought condition in Brisbane over recent years. I have given plants to friends in both Melbourne and Cairns and the plants perform well in both these locations. *Hibiscus heterophyllus* was recorded in the Brisbane area in 1824 by Allan Cunningham, in 1828 by Charles Fraser and again in 1844 by Ludwig Leichhardt. Describing the vegetation along the Brisbane River, Cunningham noted that *Hibiscus heterophyllus* was very frequent on the immediate bank "clothed with a profusion" of flowers. This tough, showy, rainforest plant is a member of Hibiscus Section Furcaria. Hibiscus Section Furcaria is perhaps best known for *Hibiscus sabdariffa*, Rosella, an introduced hibiscus. Other overseas members of this section include *Hibiscus acetosella*, Red Shield Hibiscus and *Hibiscus radiatus*. Hopefully, the Australian members of this section will be increasingly recognised for their hardiness and usefulness.

EARLY EXPERIENCES OF HIBISCUS CROSSES

I still recall my first glimpses of the large white flowers of *Hibiscus heterophyllus* (W1) that lit up the edges of the rainforest as we negotiated precarious tracks on steep hillsides on the south coast of New South Wales. Having loved *Hibiscus heterophyllus* for so long, this was one of the very first plants we tried to acquire when establishing a garden in Brisbane in 1975. However, before I was able to obtain a plant of *Hibiscus heterophyllus*, a friend with a nursery begged me to take home a plant labelled *Hibiscus divaricatus* x *H. splendens*, (W2, W3) mainly because 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, gold blooms and growth typical of this species.



Hibiscus divaricatus x *Hibiscus splendens*

In the late 1970s, a seedling appeared underneath this hibiscus. 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 its similarity to its pod parent. It really was a cross as the seedlings had characteristics of the pollen parent, *Hibiscus splendens*. The attached photos show blooms and foliage similar to the blooms and foliage of our first seedling. This was our first experience of hibiscus hybrids.



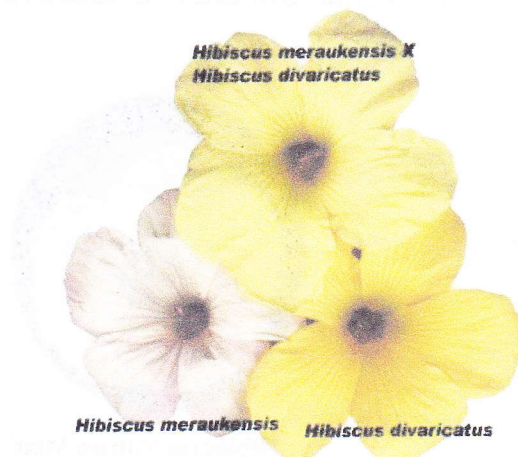
Seedling of *Hibiscus divaricatus* x *Hibiscus splendens* showing features of *Hibiscus splendens*.

Our second experience of hibiscus hybridisation took place when we moved to a larger garden in 1981. Our bush block was near an endemic stand of *Hibiscus heterophyllus*. By then, we had managed to acquire a plant of the gold-flowering form of *Hibiscus divaricatus*. To our horror, the patch of nearby white *H. heterophyllus* began to include bushes with lemon blooms. The plants were almost 200 metres away but this was not too far for whatever had pollinated these plants with pollen from our *Hibiscus divaricatus*. Fortunately the lemon "*H. heterophyllus*" were cleared for housing so they did not contaminate other locally occurring stands of native hibiscus.

These experiences taught us some of our early lessons with crosses in Section Furcaria.

1. Seedlings may have characteristics that are quite different and possibly, although not necessarily, superior to characteristics of the parents.
2. Native hibiscus cross readily and crosses near stands of bush with endemic species may have unforeseen and unwelcome consequences.

Just how readily plants in this section of hibiscus cross was highlighted when I planted seed of a one metre annual form of *Hibiscus meraukensis*. The resulting seedling was a 3 metre perennial with lemon blooms. Again the pollinator was *Hibiscus divaricatus*. This seedling has been named Hibiscus 'Ian's Lemon' in memory of Ian Waldron.



RECORDS OF HIBISCUS CROSSES

Prior to our accidental experience of hibiscus crosses, Lyn Craven had recorded information on Hibiscus 'Wirruna' in Australian Plants, June 1971. By crossing a pink *Hibiscus splendens* and a yellow-flowering form of *Hibiscus heterophyllus*, Lyn obtained an apricot-flowering plant.

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AUSTRALIAN PLANTS—MALVACEAE

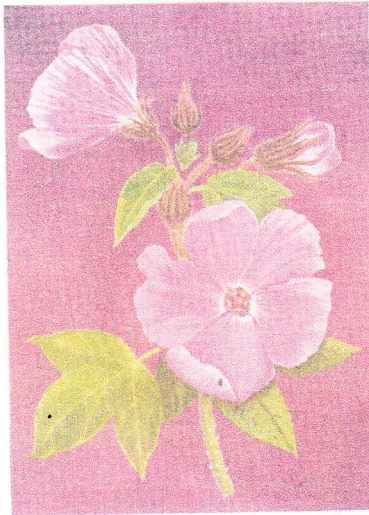
June, 1971

June, 1971

AUSTRALIAN PLANTS—MALVACEAE

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HIBISCUS SPLENDENS



Colour plate from "Wildflowers of the Warm East Coast" by Vera South-Johnson by courtesy of The Jacaranda Press. Price \$1.95 plus 25c postage from the Editor or your bookseller.

A NEW HIBISCUS HYBRID

Hibiscus 'Wirruna'. A large shrub, ultimately reaching four to five metres in height. Leaves are usually deeply five lobed, although simple and three lobed leaves also occur, and are mid greyish green with numerous hairs and prickles which also occur on the stems and pedicels. Flowers are large, solitary and axillary. Corollas are soft salmon (R.H.S. Colour Chart: Orange Group 29C) and their reverse is deeper (Red Group 37B). There is a bright red (Red Group 45B) blotch at the base of each petal giving the flower its red centre. The colour of the corolla can show variations in depth possibly caused by fluctuations in temperature or other environmental conditions.

The parents of this hybrid are *Hibiscus heterophyllus* (the yellow form known as 'Aureus') the yellow flower opposite, and *H. splendens* shown above.

It was raised by Mr. L. A. Craven of Black Rock, Victoria.

The name 'Wirruna' is an Aboriginal word which means 'sunset'.

A specimen of this clone has been lodged with the National Herbarium, Melbourne.

HIBISCUS "WIRRUNA" (Caption to colour plate opposite)

Shown with the new hybrid (orange-red flower) is the species *Hibiscus heterophyllus* 'Aureus' the yellow flower. The colour of the hybrid H. x 'Wirruna' is deeper than that which normally occurs, but is within the range seen *Hibiscus heterophyllus* 'Aureus' is a yellow form of the well known and widely grown *H. heterophyllus* usually having white to magenta flowers.



Another cross has been recorded by Jan Sked in 'Planting a Native Garden' (P1). Hibiscus 'Pink Ice', is a hybrid between *H. splendens* and white *H. heterophyllus*. This plant, with large pink blooms in spring and summer, is one I would always include in any collection of native hibiscus.

Both Hibiscus 'Wirruna' and Hibiscus 'Pink Ice' demonstrate one possible feature of crosses, namely seedlings can flower longer than the parents. I have found that this flowering period can be extended with cutting-grown plants.

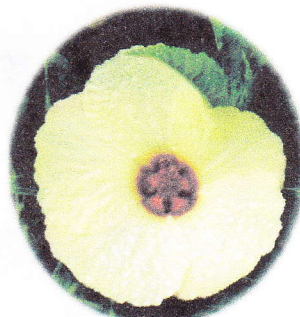
DEVELOPMENT OF HIBISCUS CROSSES

Efforts at hybridisation have now become intentional. Our areas of focus have included:

Small growing plants



Hibiscus 'Apricot Mist'

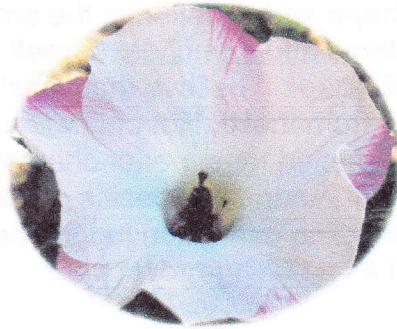


Hibiscus 'Citrus Mist'

Different colours or forms of blooms



Hibiscus 'Desert Haze'



Hibiscus 'Pete's Blush'

Culinary plants with long-flowering period for ongoing cordial, syrup, jam (See W4)

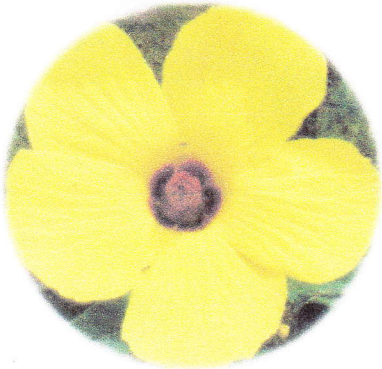


Hibiscus 'Montburg Pink'



Hibiscus 'Ian's Cream'

Plants with desirable features of species where species do not tolerate our conditions:



Hibiscus 'Gold Mist' gold of *H. heterophyllus* collected by David Hockings



Hibiscus 'Cha's Mist' pink of 'Glen Geddes'

Cold tolerant plants



Bloom of 'Rose Mist' and plant of 'Rose Mist' (centre) after -5C damaged other seedlings

CONCLUSION

7.

Within Hibiscus Section Furcaria, I have found great variation in plants, e.g. 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, hardness of foliage. I believe that 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 the wonderful Australian species of plants within this section of Hibiscus. It is important to note that a seedling cannot be judged accurately until the plant has been grown from a cutting and trialled as a cutting-grown plant.



***Hibiscus heterophyllus* form flowering in March; other local forms do not bloom after January**

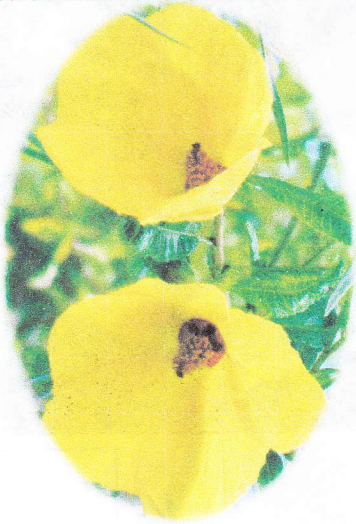
Hibiscus from Section Furcaria are so noticeable that both *Hibiscus heterophyllus* and *Hibiscus splendens* were featured in early written records. Selected forms or crosses can provide a food source for both people and fauna and these plants have the ability to survive in the toughest of conditions. It is hoped that increasing interest will not only make these beautiful, useful and tough plants more readily available but that the landscaping potential of this long ignored family of plants will gain greater recognition in Australian horticulture.



Top left: pod parent; Top right: pollen parent; below: seedling

REFERENCES

- W1 *Hibiscus heterophyllus* <http://www.hibiscus.org/species/hheterophyllus.php>
W2 *Hibiscus divaricatus* <http://www.hibiscus.org/species/hheterophyllus-hdivaricatus.php>
W3 *Hibiscus splendens* <http://www.hibiscus.org/species/hsplendens.php>
W4 Culinary <http://www.hibiscus.org/culinary.php>
P1 J. M. Sked, L. S. Smith, E. Prescott. Planting a Native Garden in the Subtropics. Pine Rivers Branch, Society for Growing Australian Plants, Queensland Region Inc., 6th Edition, 1998. 1st edition 1976.



Hibiscus
divaricatus

Queensland



Hibiscus
meraukensis

Qld, W.A., N.T.
Australia

C & G Keena, 2008

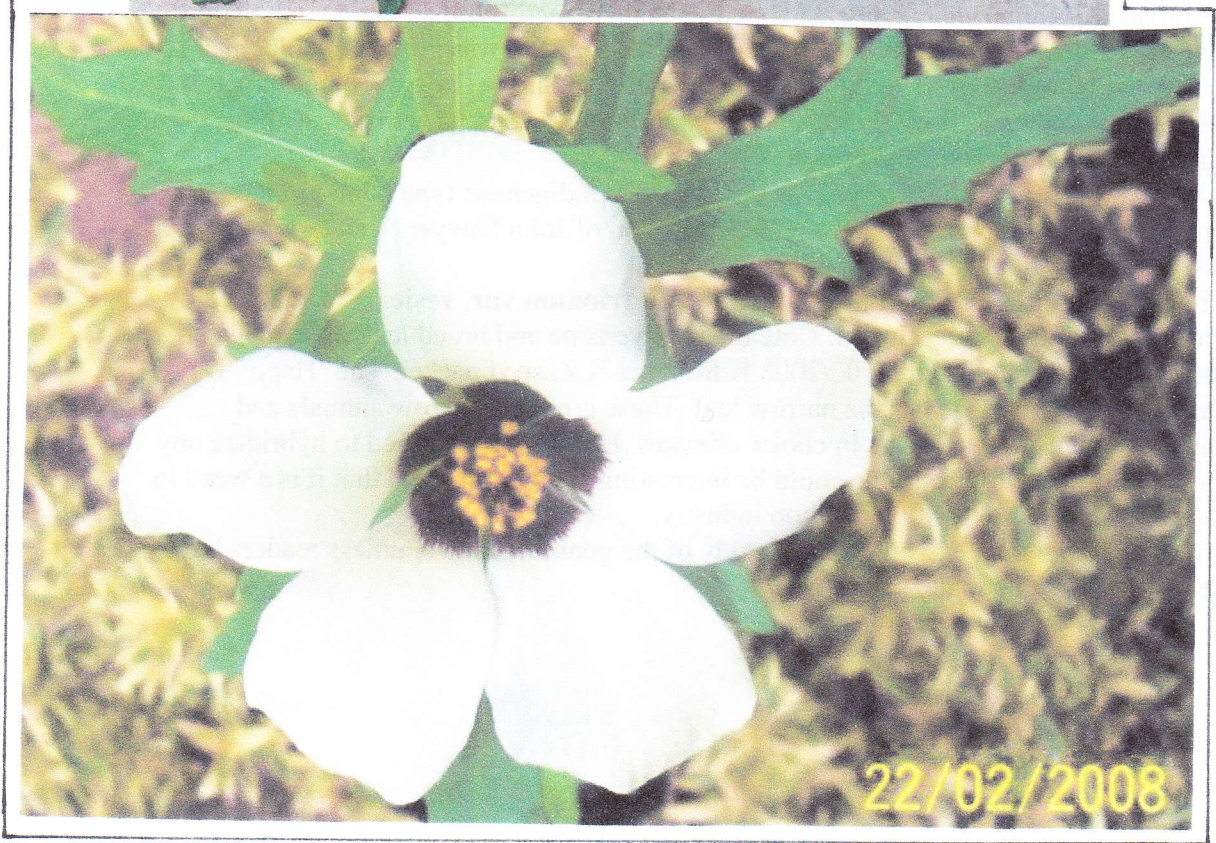
Hibiscus trionum L. variety trionum
Hibiscus trionum L. variety vesicarius Hocht

The previous Newsletter No 12 dealt with the genus **Trionum** in some depth and subsequently some more discoveries have been made. Dumped soil from construction sites here on the Sunshine Coast yielded two variations of **H. trionum variety trionum**, one similar to the weed growing near Gatton in the Lockyer Valley and the other bearing some resemblance to the cultivated types. Also a packet of New Zealand seed was sent to me from an Australian source labeled New Zealand Hibiscus with an image of a yellow **H. trionum** flower on the front of the packet. When the seed was grown and bloomed it was found to be a cultivated type similar to the cultivar 'Sunny Day' or 'Fantasia'. It is possible the introduced 'form' now naturalized in New Zealand has crossed with the indigenous form to produce the packet seed.

The image at the top of the next page is the true N.Z. indigenous type photographed by Peter de Lange and reproduced here with permission of John Sawyer Secretary, New Zealand Conservation Network.

The next image at the centre of the page shows **H. trionum var. vesicarius** collected by David Hockings at Longreach Qld. Note the red eye zone and broad leaf. The image at the bottom of the page dated 22/02/2008 is from the N.Z. seed packet. The 'Happy Day' bloom in the centre image has the narrow leaf. These are easy to grow annuals and possibly of interest to gardeners in cooler climates. I have not attempted to hybridize any of the **H. trionum** varieties. This could be interesting keeping in mind that it is a weed in cultivated regions, especially the cotton industry.

This should bring to an end our present study of the genus **Trionum** unless readers have some comments to be made known.



22/02/2008

The Australian Hollyhock

This name refers to a mainland form known as **Malva australiana** and an island form known as **Malva preissiana**. (They were previously known as **Lavatera**). Obviously this Study Group must look at the Australian Genera of Malvaceae that can be grown in the temperate parts of Australia. With not one single member in Victoria, South Australia or Western Australia, perhaps we can stir up some interest in this marvelous group of plants. I have grown one Malva (see image below) obtained from a local nursery (no tag supplied) therefore I don't know its name. Can anybody help with the name and to expand our knowledge of this genus? I note that the 'Australian Plant Name Index' lists about 27 species of the genus Malva.

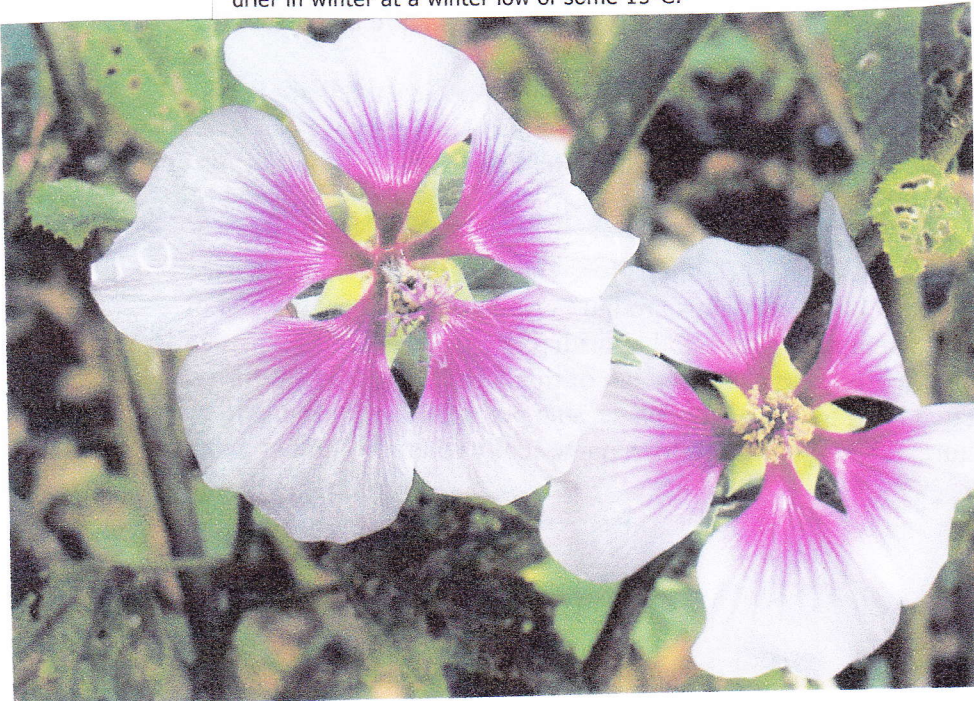
On page 11 is a very good article reprinted with permission from the 'Wildflower Society of Western Australia Newsletter ref. May 2007, written by Greg and Bronwen Keighery. I do have some seed of **Malva australiana** obtained from Nindethana Seed Service Pty. Ltd. Of Albany W.A. which I intend growing.



05-1253-29806



100 (170)cm, **Australian Hollyhock** or **Australian Flood Mallow** is a medium sized, annual to semiperennial species with a woody base and is native of SC Australia. It makes mid green, lobed to almost ovate leaves and pale rose flower cups with dark lilac stripes. Easily grown as semiperennial pot plant or as an annual in the garden. For any rich, well drained soil in a sunny spot. If grown as a pot plant keep drier in winter at a winter low of some 15°C.



Unknown? as grown by Study Group
Leader. See above. →

Australian Hollyhock by any other name

Greg and Bronwen Keighery

On many of our offshore islands growing in seabird rookeries in a nutrient rich mixture of sand and bird droppings is a very attractive large erect, soft leaved short lived shrub with big white hibiscus flowers. This plant was for many years known as **Lavatera pleibea** var. **tomentosa** Hook. Because of its habit and tall flowering stems it has been christened the Australian Hollyhock.

Although it grows on islands across southern Australia it is rarely recorded on the mainland. We have seen a few plants at the tip of Cape Leeuwin and James Drummond recorded it on the cliff tops at naval base. Recent searches at Naval Base could not locate the plants and rabbit grazing may be the cause of their demise.

On the mainland a smaller slender erect less hairy shrub with lilac-pink flowers (veined purple) and was called **Lavatera pleibea**. With the creation of var. **tomentosa** this became var. **pleibea**.

There were also a series of weedy *Lavatera*'s (**L. arborea**, **L. cretica**, **L. assurgentiflora**) and the related garden weed **Malva paviflora**. All of these have the pink or purple flowers often with dark lines and are generally referred to as Marshmallows. In 1994 studies by an American botanist Michael Ray demonstrated that *Lavatera* and *Malva* were not separable and he combined both under the oldest genus *Malva* in 1995.

Because of numerous pre-existing names in *Malva* most *Lavatera*'s changed their names, **L. arborea** becoming **Malva dendromorpha** M.R.F. Ray, **Lavatera pleibea** var. **tomentosa** and **Lavatera pleibea** var. **pleibea** becoming **Malva australiana** M.R.F. Ray.

Early this year Robyn Baker and John Conran (from South Australia) determined that there was an existing name available for **Lavatera pleibea**, namely **Malva preissiana** Miq. the type collection of which was gathered on Penguin Island by Ludwig Preiss in 1839. Therefore the island form from the Perth Metropolitan Region is the type form. I have grown (courtesy of Elizabeth Rippey) **Lavatera pleibea** from Alice Springs, a prostrate form from the Nullabor Cliffs and the island form from Shag Rock. All of these populations looked remarkably different in cultivation, a feature also noted in research in South Australia. In W.A. both forms occasionally co-occur in nature and retain their distinctiveness.

Genetic data suggests however, that they are still the same species and there is no subspecific name for both these distinctive forms of *Malva*. However, we can retain the inland pink/purple plants under the name **Malva australiana** and the island forms under **Malva preissiana** until this is resolved.

Although common on many of our offshore islands from Shark Bay South, there are a variety of threats to this unusual and striking native. The aggressive weedy relative **Malva dendromorpha** has invaded islands around Perth in Shoalwater Bay and of Rottnest and is both displacing the native and hybridizing with it. Since Shoalwater Bay is the type locality for our Hollyhock, eradication of this weed should be a priority. This is a very attractive local native with considerable potential for coastal gardens, especially in pot culture. Although the common name really refers to another genus

12.

(Alcea, the true Hollyhocks), selections of this species could truly become the Australian Hollyhock.

**The Australian Hollyhocks of Ghost tree Gully in Black Hill Conservation Park
South Australia**

Reference : <http://www.blackhillpark.com/floranews/hollyhocks6/index.html>

This account is worth a read and has good images of **Malva australiana** growing in a natural habitat. One of the images is reproduced below (1 original-1353-14906) and on page 10 see – (65-1253-29806)

Mud Islands : Port Phillip Bay's Natural Wonder

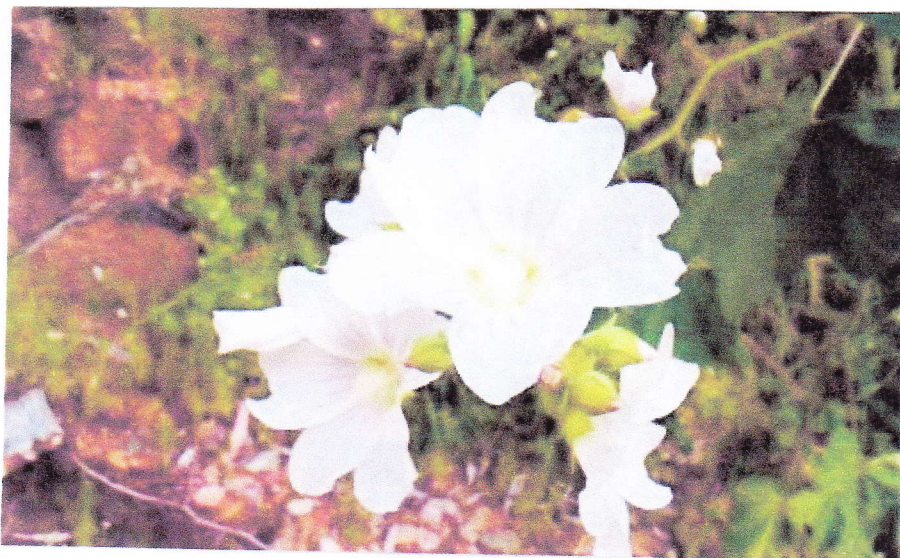
Reference : <http://home.vicnet.net.au/~phillip/mudisles.htm>

This read is really an 'eye-opener'. Here is a paragraph from page 2 to wet your appetite :
"From 1990 onwards, Straw-necked and Australian White Ibis commenced nesting on Mud Islands in huge numbers. This led to further dramatic change in the vegetation as the previously dominant Coast Saltbush was replaced by Coast Hollyhock over large areas. Coast Saltbush is a brittle shrub that ibis readily use to construct large, elaborate stick nests. Coast hollyhock is so fibrous that it cannot be used by ibis when alive, and it rapidly colonises bare areas created by ibis. Thanks to the ibis, the hollyhock population has risen to over 5000 mature plants, making it the largest known population of this rare species in the world..

Images of **Malva preissiana** can be found at Florabase, Department of Environment and Conservation, Western Australian Herbarium.

Reference : [//florabase.calm.wa.gov.au/browse/photo/31351](http://florabase.calm.wa.gov.au/browse/photo/31351)

Over the page please find images of **Malva sylvestris** and **Malva moschata**.



11original-1353-14906

13.



*Malva
moschata*



*Malva
sylvestris*