

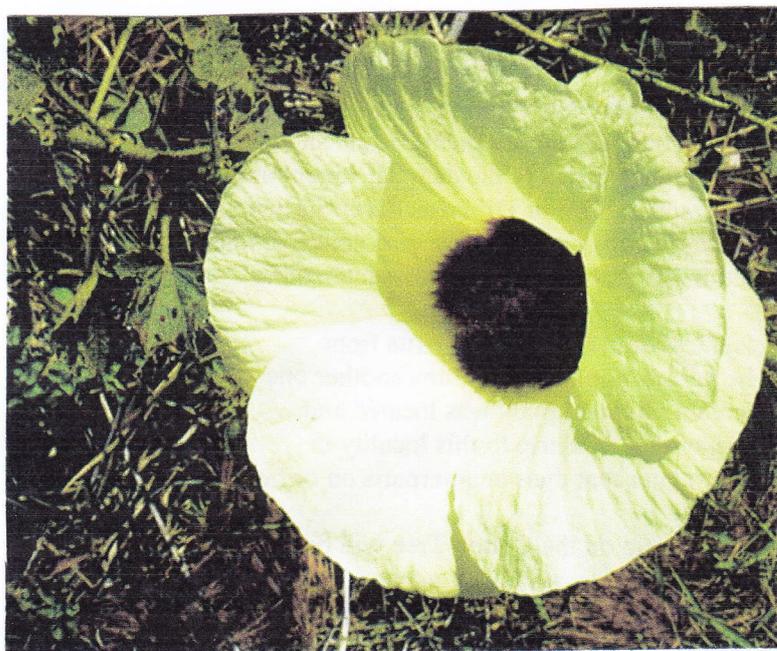
ASSOCIATION OF SOCIETIES FOR GROWING
AUSTRALIAN PLANTS
HIBISCUS AND RELATED GENERA STUDY GROUP
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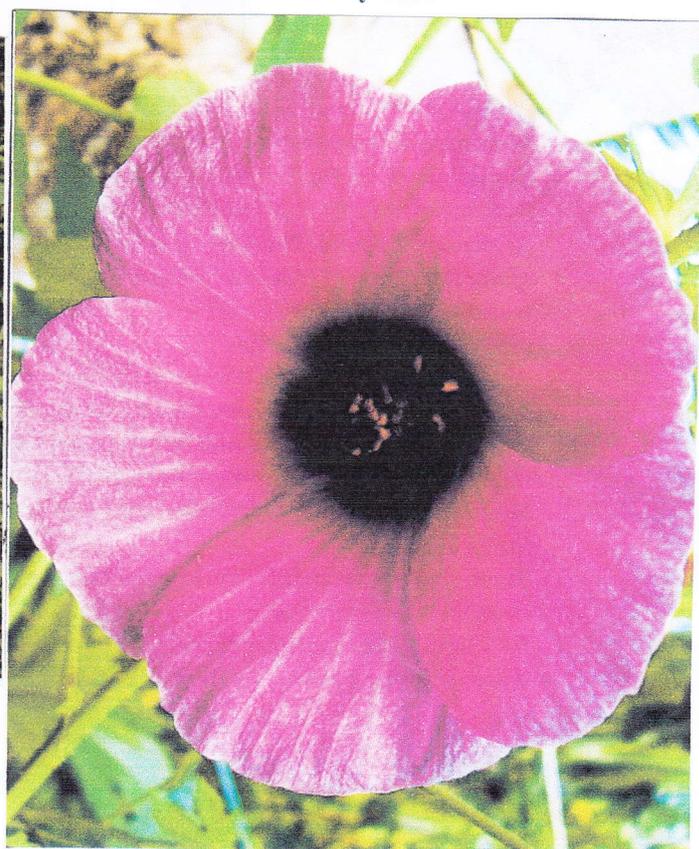
**Hibiscus meraukensis at
Buderim – 19/2/2007**



**Hibiscus heterophyllus
Pink form from Glen
Geddes – January 2007**



**Hibiscus diversifolius
Lake-side, Cooroy
Sunshine Coast**



**Hibiscus diversifolius
Purple form – at
Buderim – 19/2/2007**



Hibiscus heterophyllus
From Kenilworth,
Sunshine Coast- 9/11/06



Hibiscus divaricatus 57 km
north of Biloela, Qld.
Image 3/12/03. See also
leaf scans & comment

Welcome to Newsletter No. 10 Whilst most of our country has endured below average rainfall, here on the Sunshine Coast things are not too bad. We get frequent coastal showers that unfortunately don't penetrate inland where the rain is needed in the dam catchment areas. At present **Fairhill Nursery** is promoting a very attractive form of **Hibiscus diversifolius** under the name of '**Colour Magic**'. This maroon/purple Hibiscus may change colour in cooler weather and apparently will even grow submersed in water. Indeed it is a most interesting plant with an obscure history.

At the top of the image above on the right side is the yellow **H. heterophyllus** from Kenilworth in the Sunshine Coast hinterland. The yellow population adjoins another one which is the usual white and between the two a cream bloomed plant was located and included in the above image. Perhaps we could organize a field trip to this locality in November next year. The hinterland Hibiscus bloom later than their counterparts on or near the coast.

Some items intended for this newsletter such as a write-up on the Cotton Tree will be held over for the next issue.

As I have often said, it would be very desirable to get some members from the many districts where Hibiscus grow. To the current members, thank you again for your valued support.

Geoff Harvey
Study Group Leader

MALVACEAE IN A WATERWISE GARDEN IN SOUTH-EAST QUEENSLAND

C. and G. Keena

Although there are Malvaceae such as *Hibiscus diversifolius* that can be found growing in water, many need little water and a range of Malvaceae are performing extremely well for us in our current extended dry conditions.

The drought hardiness of Malvaceae species is being recognised with their inclusion on lists of plants for waterwise gardens. For example, the State of Queensland Environmental Protection Agency, 2007, has produced a list of WaterWise plants (W1) with Sturt's desert rose (*Gossypium sturtianum*) included as a **medium shrub** and Kurrajong and bottle tree (*Brachychiton species*), Native rosella (*Hibiscus heterophyllus*) and Norfolk Island hibiscus (*Lagunaria patersonii*) on the list of **tall shrubs and trees**.

When we started this garden in 2000, we applied three principles learnt in previous gardens. Two of these gardens are described in W1 and in P1.

1. **appropriate site preparation** e.g. deep ripping, mounding and channelling to catch all rain water
2. **selection of suitable species**
3. **mulching** with a mulch that improves the soil as it breaks down.

Application of these principles has resulted in a garden which requires only rainfall to keep plants looking healthy in established areas. The many Malvaceae plants flourish and even seaside species such as *Thespesia populnea* and *Talipariti tiliaceum* (*Hibiscus tiliaceus*) have never needed extra water. Local *Abutilon species* are performing well, as are established plants of *Alyogyne*, *Hibiscus* and *Lagunaria*.

However, given the current extended dry conditions, we now find that the following are important in establishing new plantings, even for the drought hardy Malvaceae noted above.

1. **wetting agents and/or water-storing gels** (P2)
2. **anti-transpirants**
3. **seaweed products** to increase resistance to heat, drought and frost.

We have not needed to apply these to existing Malvaceae plantings, even of moisture loving species such as *Hibiscus diversifolius*. We do though find that it is very difficult to establish new plants unless we use these products appropriately and hand water new plants as necessary in the first few months after planting.

For the home gardener, the drought certainly impacts negatively. However, it has made us examine what changes need to be made if we are to ensure that the local wildlife is to continue to enjoy our Malvaceae as much as we do.



REFERENCES: W = Web P=Print

P1: Our Garden, number 38, Colleen Keena and David Somerville, *Australian Plants*, September, 2002

P2: David Nichols, 'Wetting agents or water-storing gels?', *Australian Horticulture*, January 2007.

W 1: http://www.ausbushfoods.com/articles/3_bucket_garden.htm

W 2: http://www.epa.qld.gov.au/environmental_management/water/waterwise_toolbox/waterwise_plants/

IN SEARCH OF NATIVE HIBISCUS - GEOFF HARVEY
18TH TO 20TH SEPTEMBER 2002

The main objective of this trip was to visit the Glen Geddes area in the Port Curtis Pastoral District some 53 km north of Rockhampton on the Bruce Highway. It was hoped to find the intriguing natural hybrids called "Glen Geddes Sorrel" by Keith Williams and considered to be **Hibiscus splendens x Hibiscus heterophyllus**. Personal communications with David Hockings identified various sites where he had observed interesting bloom colour combinations seen some years previously in the same plant communities. At this time David was still growing a dark pink bloomed variety from Glen Geddes with a fringed petal edge and red bark.

The timing of the trip was to catch the flowering season (August/Sept.) as reported in Keith William's book "Native Plants of Queensland" Vol. 1

The so called 'Glen Geddes Hibiscus' was first seen at the junction of the road that leads to Woodville, which leaves the highway on the western side some 5 km south of Glen Geddes. Some plants grow along the first 2 km of the Woodville Road, after which the road is unfenced and heavily grazed by livestock. Eventually this road rejoins the highway just to the north of Marlborough thus a lengthy section (about 50 km) could be examined for the occurrence of Hibiscus.

The only other species of Hibiscus seen near the area where the hybrids occur is **Hibiscus divaricatus**. Travelling north it is first encountered within 1 km of Childers extending about 310 km to Rockhampton. It is common along the circuit road from Rockhampton to Yeppoon and Emu Park on the coast. North of Rockhampton **H. divaricatus** extends 34 km to Yaamba with a particularly dense population at the turnoff to Etna Caves. The so called Glen Geddes Hibiscus occurs for 68 km between Yaamba and Marlborough, after which **H. divaricatus** is again encountered extending to at least 32 km north of Marlborough and roughly the same distance westwards to the vicinity of the Chrysoprase mine. Glen Geddes, (a former railway siding) is 49 km north of Yaamba or 53 km north of Rockhampton.

About 30 km south of Marlborough a road extends roughly 100 km to the coast at Stanage, which is approx. 22 degrees south. I would very much like to know what Hibiscus occur through this area to the sea.

Near Glen Geddes the highway has been cut through low, well vegetated rocky hills of serpentinite and the Hibiscus is quite common along the shaded road verge with pale pink to nearly white blooms. One similar plant in bloom was seen about 7 km south of Marlborough (95 km north of Rockhampton) in the grassed road verge on the western side of the highway. 55 km from Rockhampton a road known as Raspberry Creek Rd. heads east and after 1 km Nickel Rd. branches off on the right side. Plants were found to extend for 4 km to a gate on Nickel Rd. being an entry to private property thus preventing further progress. This is a newly made road through red clay soil, semi-open forest and quite dense scrub. Some young plants were seen in the disturbed soil on the road verge and compared to the Bruce Highway plants were quite vigorous with mostly 3 to 5 lobed palmate leaves of **H. heterophyllus** appearance. The flower buds were dark pink and had still not opened at 11 am. Because of this the plant is hard to locate from a vehicle in the morning, but when searching on foot are found to be quite numerous. The plants are more vigorous in full sunlight with a distinctly spreading habit rarely more than 1.5 m in height with some branches reaching 2.5 m spread. Branchlets ascend vertically from these horizontal branches to about 15 cm and were producing many flower buds. Foliar nectaries were conspicuous and attended by ants – (commonly known as meat ants) The leaves of these Glen Geddes plants were quite stiff and leathery compared to normal east coast Furcraea section Hibiscus, the exception being **H. meraukensis** and the **H. heterophyllus** form known as 'Rosie' which apparently comes from this same general area. Most of the country near Glen Geddes has been converted to grassland for grazing purposes and appears to contain no Hibiscus. The road verges are a haven for native species, especially Hibiscus and this is where the pink Glen Geddes 'variety' is found. The very grassy road verges are obviously burnt from time to time and strip grazed in time of drought, therefore

populations of Hibiscus will probably vary in content or variety make-up and may indeed be eradicated. Also spraying for weeds along roadsides is quite common. The hard long-lasting seed of Hibiscus may ensure survival in the re-generation process.

The scrub habitat, being overshadowed and choked with small shrubs is probably not the ideal habitat for the 'Glen Geddes Hibiscus', but it seems to be able to cope. This hilly country extends eastwards and may be worth investigating to find out if the 'variety' is constant in the 'bushy' environment.

Keith Williams in his book (published in 1979) had the following to say - "Glen Geddes Sorrel : an interesting natural hybrid \pm 2m. high, but frequently plants are seen that may be a little shorter. The plants have distinctly red coloured stems; especially on the older and mature parts of the plant.....The plant has been brought into cultivation and it is successful. The leaf has a tendency to become somewhat larger and often is lobed."

Another reference is as follows : "Much branched, small to medium **shrub**; stems prickly; young growth grey to dark green; **leaves** 5 to 20 cm x 1 to 10 cm. linear to linear-ovate, usually 3 to 5 lobed, grey green to green, margins shallowly toothed; **flowers** 10 to 15 cm. across, white, pale pink or deep pink with a dark central blotch; **capsules** 1.5 to 2 cm x 1 cm, ovoid, hairy; **seeds** glabrous, A natural hybrid that is established near Glen Geddes in the Port Curtis District. The progeny vary in flower colour from white to deep pink."

F. D. Wilson and L. A. Craven's publication "Two New Species of Hibiscus section Furcaria DC (Malvaceae) from northern Qld, Austrobaileya 4(3) page 445 refers to what is probably the same plant population - "Paul Forster (BRI) drew our attention to a number of collections at BRI representing plants from Port Curtis District, Queensland, growing on serpentinite and displaying flower colours ranging from white with a pink flush to apricot, pale pink, pink, orchid pink and rose pink. All fall within the morphological limits of **H. heterophyllus** as accepted in this paper. It is obvious that more than a morphological study will be required to resolve the relationship among these taxa."

The apricot flower probably eventuated through a cross with **H. divaricatus** and has not been observed during any of my visits to the area'

In the well defined area that the Glen Geddes Hibiscus occurs no sightings were made of either **H. splendens** or **H. divaricatus**. Using this initial reconnaissance information, searches later in the calendar year could prove fruitful. In my opinion **H. meraukensis** would be found in the autumn as it has been recorded from the northern end of the Wide Bay District as well as the Port Curtis District. One would think that a natural cross between the white bloomed **H. heterophyllus** and **H. meraukensis** would resemble what we know as the 'Glen Geddes Sorrel.'

Since Sept.2002 when the above data was collected trips through the area in January, 2003 and March, 2005 revealed some changes in that all the young plants at the entrance to Nickel Road had been lost due to strip grazing of livestock. Surviving plants elsewhere were in full bloom indicating a probable year round event and an overlap with **H. meraukensis** in the autumn after the wet season. The foliar nectaries were producing copious nectar in March and also under cultivation at Buderim in August of 2006. It is very sweet to the taste.

Whilst The 'Glen Geddes Hibiscus' is not under immediate threat in its natural habitat it is thought that the situation should be monitored and if necessary in due course some provision should be put into place to ensure survival of this interesting plant

Dr. Dion Harrison has offered the opinion that it could be a polyploid, thus inviting genetical study to resolve this question

Your Study Group Leader wishes to complete the field survey in late summer or early autumn of 2007 and would be grateful of any suggestions as to data needing to be recorded Seed would be collected for SGAP purposes and herbarium material for Lyn Craven if required.

The 'Glen Geddes variety' has been used extensively in hybridizing with **H. Barambah Creek**. The reasons for selecting this species as a parent plant are :

- (a) Very attractive, furry, grey lobed foliage.
- (b) Large pink flower similar to **H. splendens**.
- (c) No prickles or irritating hairs on any part of the plant.
- (d) Hybridizes easily with other endemic east coast section Furcaria species.

- (e) Comes from a frost area near Kingaroy, therefore cold tolerance should be an inheritable characteristic.
- (f) Not a large plant compared to **H. splendens, heterophyllus and divaricatus**.

The reasons for selecting the 'Glen Geddes variety' as a parent are :

- (a) Almost continuous blooming.
- (b) Attractive red/brown bark and dark green, well textured foliage.
- (c) Prickles and irritating hairs not numerous.
- (d) Hybrid vigour should be evident as the localities are widely separated – one almost coastal – (23 degrees south 152 degrees east) and the other inland – (26.3 degrees south 150.8 degrees east).

Undesirable characteristics **H. Barambah Creek**

- (a) Untidy bush that tends to horizontal rather than vertical growth.
- (b) Prone to infection from mealy bugs.

Undesirable characteristics '**H. Glen Geddes Variety**'

- (a) Untidy bush that tends to horizontal rather than vertical growth.
- (b) Plant vigour somewhat lacking under cultivation at Buderim.
- (c) Blooms open late in the morning.

Seedling Results : More than 30 seedlings were observed with flower colours ranging from pale to dark pink all well presented in a semi-upright position and fully opened. Bloom sizes were all smaller than **H. Barambah Creek** – perhaps averaging 11 to 12 cm across. Bloom texture was improved and they lasted well into the late afternoon. The red/brown bark was dominant in most specimens, prickles and irritating hairs being minimal. The plants were not over large, tending to be spindly rather than well branched and compact. In all not good enough for commercial purposes, but the best of them show good promise for further breeding.

As the vigour of these seedlings as well as **H. meraukensis** is lacking at Buderim it is proposed to obtain some soil from the field sites to perhaps introduce the mycorrhizal fungi that they may need for improved nutrient uptake.

Scans of Leaves

Hibiscus meraukensis : See Fig 1(a) and 1(b)

The leaf chosen for scanning is regarded as a typical climax leaf. The variable leaves are usually divided into dark green, narrow lobes, quite firm textured, with margins finely toothed, 8 to 18 cm x 2 to 10 cm. The veins are prominent with a conspicuous foliar nectary 2-8 cm long at the base of the midrib on the dorsal surface.

There appears to be a number of distinct ecotypes within the **H. meraukensis** complex which is widely distributed across northern Australia and southwards to the Wide Bay District in Queensland. The blooms are always pendulous and a peduncle is present.

'Glen Geddes variety' :

Once again the leaves are variable. The lobed leaves in the scans see Fig 1(a) and 1(b) are typical of container grown seedlings at Buderim and those collected from mature plants located in Nickel Rd., Glen Geddes. The distal leaves are mostly entire reaching 18 cm by 5 cm at the widest part of the mid leaf. These leaves reduce in size nearing the extreme tip of the branches. Leaf margins are serrated and the foliar nectary is conspicuous. Small hooked spines pointing towards the tip of the leaf are scattered along the midrib of the dorsal surface. This is a distinguishing feature of **H. heterophyllus** and forms derived from the typical species.

H. divaricatus,

The scanned leaf in Fig 2(a) and Fig 2 (b) is from a plant collected 57 km north of Biloela near the McDonald Rd turnoff. The long narrow serrated leaf is typical of those from the climax region. Basal leaves are usually narrow 3 lobed with serrated margins. Foliar nectaries are present at the base of the midribs.

H. 'Dwarf Biggenden'

Fig 2(a) and 2(b) The narrow serrated leaf and yellow bloom is derived from **H. divaricatus**. The pendulous flowers with peduncle present and the extended all year

7.

round flowering relate to **H. meraukensis**. This is a natural hybrid collected by Colleen and Geoff Keena at Biggenden in Qld. It appears to be sterile as all attempts at crossing have so far failed.

H. heterophyllus (yellow bloom) ex Mackay Region x **H. meraukensis** Fig 2(a) and 2(b) The scanned leaf is very similar to **H. meraukensis** and the small white flower with a hint of yellow has a better texture than **H. meraukensis**. Manipulated self cross seed collected in late January, 2007 has failed to germinate after 3 weeks. It could be a useful ornamental plant as the bush is small, compact and blooming is continuous.

New South Wales Blooming.

A note from associate member, Meg Goulding dated 12/12/06 read in part, as follows :
“We had a prolific flowering of the common white (i.e. **H. heterophyllus**) hibiscus, but not so many pinks (i.e. **H. splendens**) ----- while driving up to Dorrigo we noted two places they were flowering, one near Port Macquarie and a beautiful group of them near Kempsey. The white ones grow part of the way up ‘Water Fall Way’ (i.e. Dorrigo Mountain).
We came home through Ebor and to Bendameere then down ‘Thunder Bolt’s Way. Heaps of the common ones on ‘Thunder Bolt Way’ and around Gloucester. This was mid November and the white ones are still flowering”.

Thanks to David Hockings for his feed back on rare species.
Any more opinions on this important subject?

Congratulations to Geoff Keena, whose images were accepted by Australian Post for postage stamps and maxicards. Upon request from your S.G. Leader Colleen Keena provided the following :

“We were contacted about **Gossypium sturtianum** images through our website. We sent a number away and one was chosen for one of the maxicards and the same image is on the cover of the book of ten 50 cent stamps. Another image that we sent was chosen for one of the set of four wildflower stamps.



What is **Pentapetes phoenicea** L. ?

The name caught my attention as I'm sure that I have seen it somewhere, perhaps Papua New Guinea where I lived for 20 yrs. It was most likely in the Western Province of Papua as it also occurs in coastal areas of the Northern Territory.

Although grown as an ornamental it is a weed of rice fields in Laos and Cambodia.

The Pentapetes Page <http://www.malvaceae.info/Genera/Pentapetes/Pentapetes.html> provides plenty of information.

Scarlet mallow (*Pentapetes phoenicea*) is native to south and Southeast Asia, from India to the Phillipines and the north coast of Australia. While the flowers only last a day, the plant has a long bloom season and produces many blooms at one time. The *Indian Materia Medica* lists it as a demulcent, astringent, to dispel phlegm and alleviate fever and gas. It is said to be used in Thai cooking.



Tripping in Western Queensland

Dr. Dion Harrison

In October and November 2005 I made two field trips to see the wildflowers of Central Western Queensland for my work with the Centre of Native Floriculture at the University of Queensland, Gatton Campus.

During the trip I made some notes on members of the Malvaceae Family that I saw, although Malvaceae were not the focus of the trip, so I'm sure I missed many specimens along the way. The trip began in Longreach and a visit to a private property called "Stanton" where **Hibiscus brachysiphonius** was spotted. Then it was off to Mt. Isa with **Gossypium australe** common along the Landsborough Highway between Winton and Cloncurry. (seed collected). This was my first time seeing this species in the 'wild' so I had to stop the car to inspect and take a photo. It was then that I learned how ferocious the ants are that live at the base of these plants, and how quickly they can run up the stems and start biting your hand the moment you touch the bush. Not quite the experience I was expecting. After spending the night at Mt. Isa, we proceeded to Dajarra. About 100 km down the road **Gossypium australe** was plentiful along the roadside, but I decided to give the ants a miss this time. Arriving at Dajarra we headed off to Boulia and then took the Breadalbone turnoff (Diamentina Development Road) to Bedourie. We stayed the night at Bedourie and then headed down the wet-weather road to Birdsville. About 9 km down the road at Cockawinchick Creek **Lavatera plebia** (Australian Hollyhock) was plentiful in a dry creek bed. (Seed collected) After that I did not see any Malvaceae until just outside Birdsville, where we detoured to a place called Dingo Caves This is quite a desolate place, yet with two plant species present. An **Ameranthaceae (Ptilotus abovatus)** and an **Abutilon sp.** that had dried up. (seed collected) After a few drinks and staying the night at Birdsville Pub, it was off to Windorah (with a detour to see the ruins at Cordillo Downs, and a flat tyre to add to the outback experience. The Windorah area was the richest that I noted for Malvaceae, with several **Sida spp.** And what I think is **Hibiscus solanifolius** (section Bombicella) growing in the flats adjacent to the sand-hills about 4 km west of Windorah on the Birdsville Road. Despite several attempts, I couldn't get a photo of the flowers when they were open (probably due to the heat of the day), so I collected some seed and I planted it to get a photo (see image page 13), and have pressed a sample to send to the herbarium for identification. This is interesting since a search of the web for Australian Hibiscus (www.malvaceae-info/Biology/Biogeography/SpeciestableAU.php?taxon=7) indicated that **Hibiscus solanifolius** doesn't occur in Queensland.

(Editor's note – this needs to be a tentative identification until botanically confirmed or otherwise)

Heading north of Windorah along the Jundah Road more **Gossypium australe** were noticed, particularly where the road had been previously graded. About 40 km N.N.E. of Windorah a couple of plants of **Hibiscus burtonii** (section Bombicella), were observed. A photo of the flower was featured in the last N.L. These quite insignificant plants, about 30 cm high were not in flower at the time, but the seed capsules quickly identified them, and again after growing some seedlings last spring I was able to identify them. At the same time I found a plant with a seed capsules that I thought was **Hibiscus sturtii** based on the fused calyx and confirmed by Geoff Harvey, based on photographs of the seed capsules. I will plant some seed shortly to confirm. Another unknown **Abutilon** (possibly an **Abutilon leucopetalum**), based on the long calyx on the seed capsule) was also found at the site (seed collected). At Jundah, we took the turn off to Longreach. About 30 km south of the northern Stonehenge turn off there were two large plants of **Gossypium sturtianum** in flower. I had to stop and photograph these (seed collected) About 4 km past the northern Stonehenge turn off, I noticed more **Hibiscus burtonii** and another **Abutilon sp.** From here, back to Longreach to complete the trip.

See image of the **Hibiscus sp.** Tentatively called **H. solanifolius** on page 13.

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H. meraukensis

climac leaf
adaxial surface



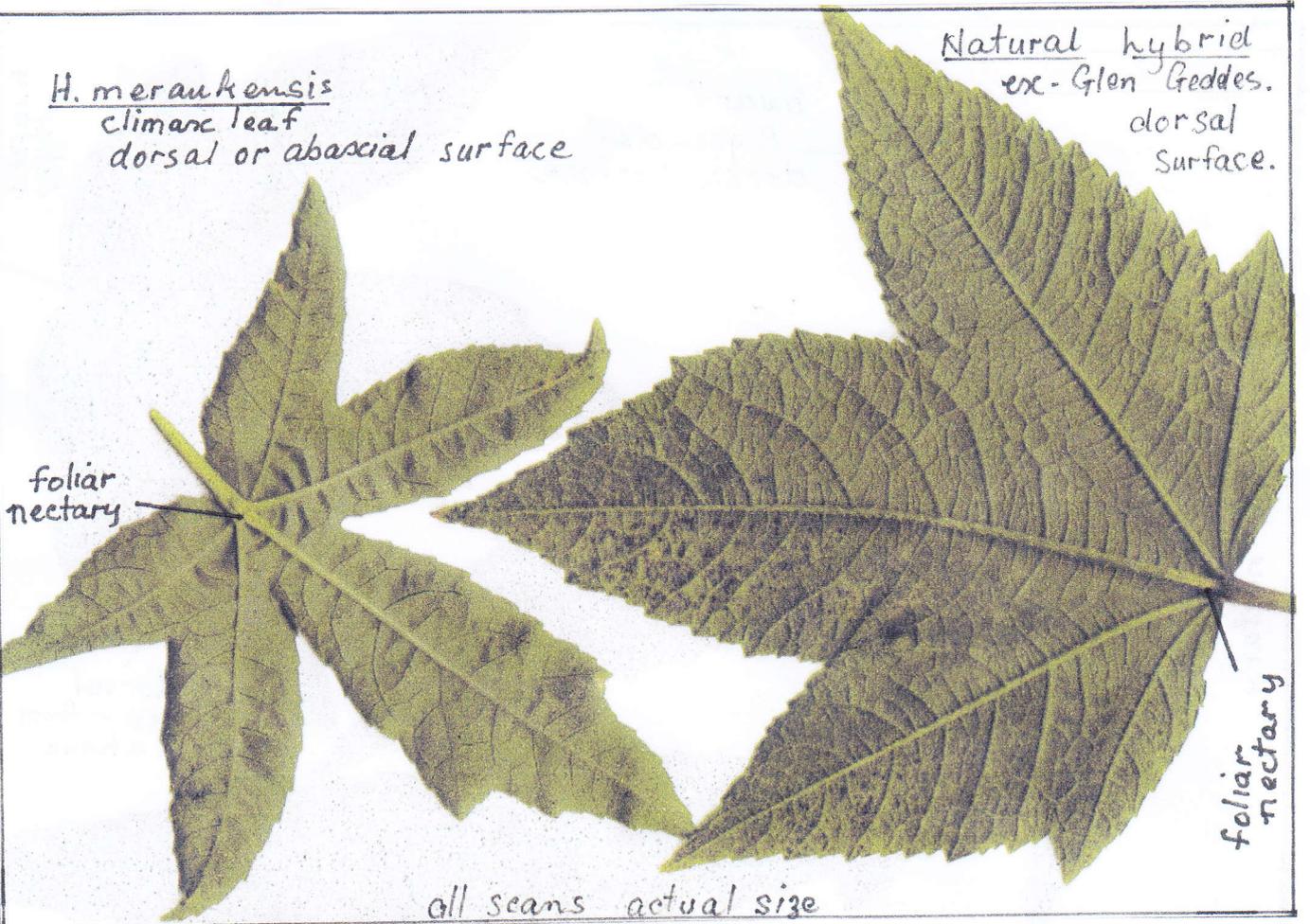
Fig. 1(a)

Fig. 1(b)

H. meraukensis

climac leaf
dorsal or abaxial surface

Natural hybrid
ex-Glen Geddes.
dorsal surface.



foliar nectary

foliar nectary

all scans actual size

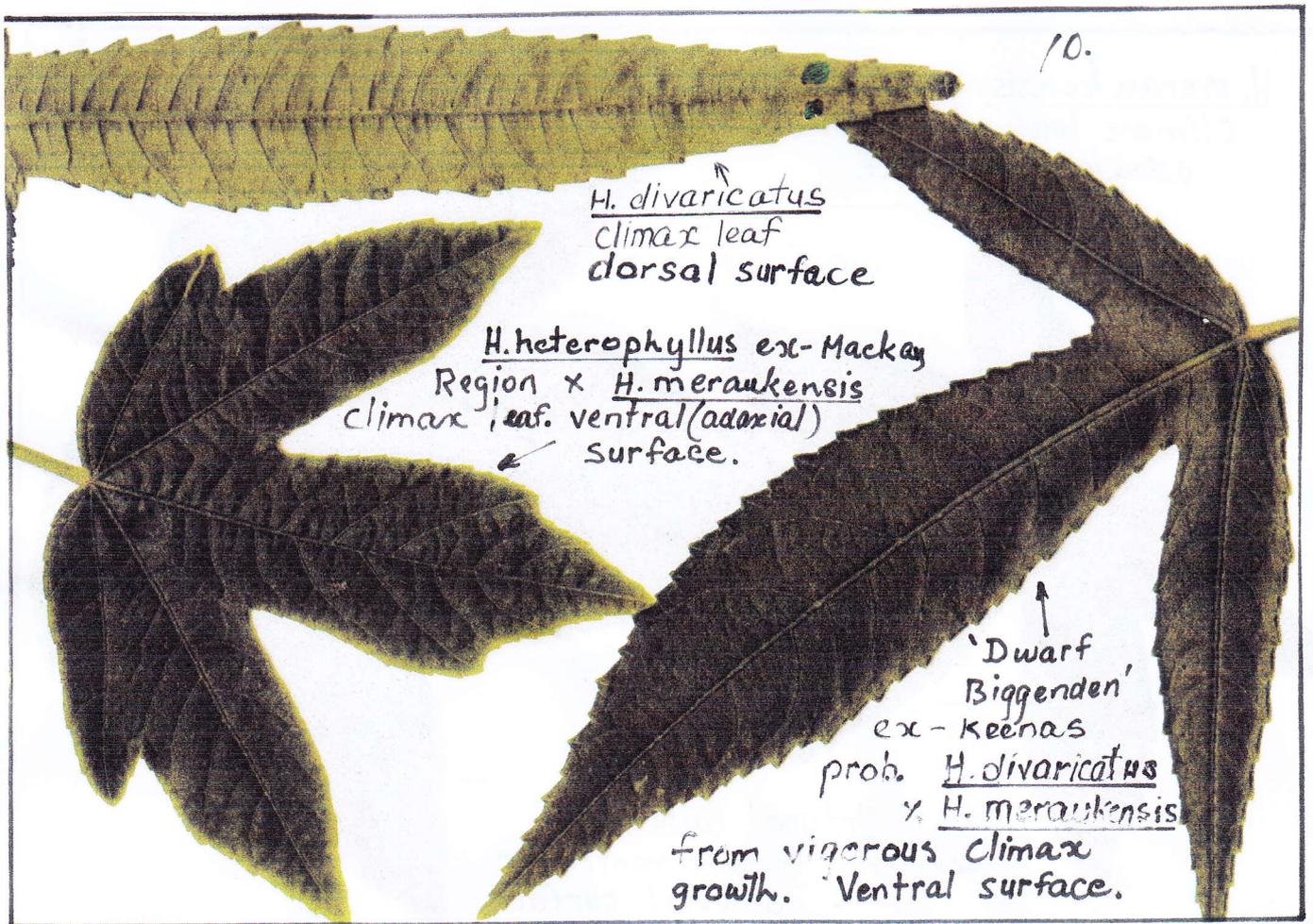
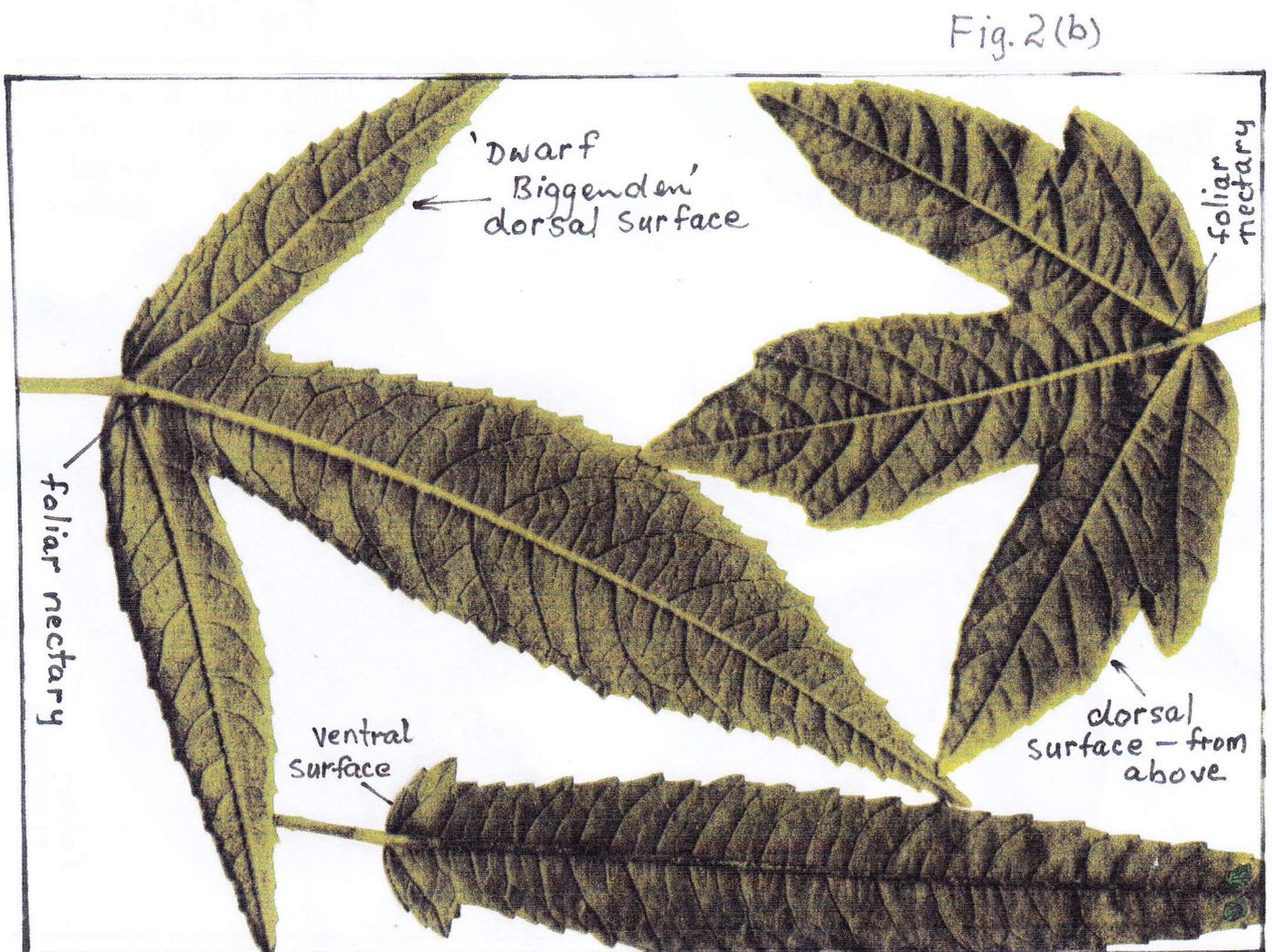


Fig. 2(a)



Hibiscus diversifolius Jacq.

Apparently there is only the one species occurring in Australia with a chromosome number of $n=72$, which is an octoploid. It is found in coastal swampy localities from Fraser Island in Queensland to Bulli in the Illawarra District of N.S.W. Other distributions include the swampy edges of Euramoo crater lake on the Atherton Tablelands in far north Queensland and on the mud flats in the Swan River estuary and on creeks in the Darling Range of Western Australia ref.-

http://members.iinet.net.au/~weeds/western_weeds/malvaceae.htm

The Queensland Herbarium has records from the Cook Pastoral District (2) South Kennedy (3) and Port Curtis (2), which extends the usual published data.

It is common in tropical Africa, its apparent centre of distribution; in Papua New Guinea it occurs in parts of the highlands as well as the coast, Oceania, the Philippines, New Zealand and central and South America. Botanist, F.D. Wilson considers that its extra-African distribution, including Australia, suggests that it may have been dispersed in salt water. It is regarded as being native to Australia, though separate to the endemic section *Furcaria* taxa due to the differing morphological and cytological factors.

Wilson and Craven in their 1995 publication "new northern Queensland Hibiscus" made the following comments : "A purple flowered form of **H. diversifolius** occurs at Lake Euramoo on the Atherton Tablelands in north Queensland (*Brass* 33650 (BRI), *Kershaw and James* ANU 10025 (CANB), *Scarth-Johnson s.n.* (BRI). Exell (1961) noted that the only form of **H. diversifolius** that occurs in the Zambesiaca area is purple-flowered and uniformly pubescent and is referable to **H. diversifolius** subsp. **Rivularis** (bremek. & Oberm.) Exell. The yellow flowered **H. diversifolius sens. Strict.**, that occurs both north and south of the Flora Zambesiaca area, is distinguished not only by its flower colour, but also by the longitudinal line or lines of pubescence on its stems. This distinction, however, does not hold in Australia because uniformly pubescent stems occur on yellow-flowered collections (e.g., *McDonald* 459 (CANB) and a purple-flowered form has lines of pubescence (e.g. *Kershaw and James* ANU 10025). Therefore, we regard the purple-flowered form of **H. diversifolius** in Australia as merely a colour variant. Such variants are common amongst species of **Hibiscus** section **Furcaria** (Wilson 1994)."

The only known natural habitat for the purple-flowered **H. diversifolius Jacq.** In Australia is from Lake Euramoo.

About 10 years ago a nursery in North Buderim (no longer in existence) was selling a purple-flowered **H. diversifolius** as a plant for water features and they had it in pots of gravel totally submersed in water surrounding a large fountain. The plants were growing fantastically well with plenty of blooms and customer appeal. My plants came from this source and I always considered them to be the Euramoo variety. They are 2 meters tall in pots resting in saucers of water and have never set any seed. Frequent pruning is necessary to keep the size in check.

The Euramoo **H. diversifolius** is illustrated on page 154 of Keith William's book "Native Plants Queensland, Volume 1. The three blooms in the image appear to be past their best, thus a bit miss-leading. The description provided fits the plants that I have growing.

A query from Fairhill Nursery, who have this apparently identical Hibiscus for sale under the name of "**Colour Magic**" prompted me to contact Colleen Keena who provided the following information :

"A friend of mine named '**Colour Magic**', as it changes from lemon in winter to maroon in summer and pink in-between. I got Doug Wilson (USA Botanist) to look at it when he stayed with us and he thought the plant was **H. diversifolius**. My original plant came from seed from the seed-bank from the then SGAP Hibiscus Group. I have seen the plant, or one very similar, for sale in places where it would be unlikely to have come from me, e.g. Limberlost Nursery in Cairns, however, if the plant is identified as '**Colour Magic**' then it possibly came from me. I have only ever had one seedling in almost 30 years, In our conditions, this plant is hardier than any that I have tried, and I have tried a number of lemon forms, from locations from Lismore to Noosa and sites in between."

Perhaps colder conditions away from the coast are needed to cause the colour change as my plants flower purple-maroon all year round.

If the SGAP seed-bank once had seed, then somebody must know the origin. Also it must seed satisfactorily in its 'native habitat', possibly the wet tropics?

Our Study Group needs more information on this interesting variety and I hope very much to hear from somebody out there with any news.

Should rare species be brought into cultivation to help ensure their survival?

Whether or not rare species – indeed any species – should be brought into cultivation has been a subject of emotional debate for decades.

There are those who see cultivation as “messing up the gene pool”; who apparently believe all natural things should be isolated in their own “purity” for eternity.

Then there are those who do not see the world as static: who recognize the world has always been wildly dynamic – that the species themselves have been and are continually evolving – even hybridizing – to produce new species, new forms – or else they may disappear because they are unable to adapt to changing environmental conditions.

Having rare species in cultivation allows closer study without endangering the existing plants, also the opportunity to reintroduce the species into the natural habitat or new habitats should this ever become necessary.

The human population has very successfully manipulated naturally occurring plants over the thousands of years of it's history, to better feed and clothe its self and to enhance its surroundings with attractive flowering or foliage plants.

The classical example of cultivation ensuing the survival of a species is *Gingko biloba* – thought to have been extinct for thousands of years but discovered planted in a monastery garden – and now available for everyone's enjoyment as a garden plant.

This also has a bearing on another anti cultivation argument – that cultivation originating from one or a limited number of individuals, dangerously reduces the genetic diversity of the species. It has yet to be shown how this has disadvantaged the ginkgo. Cultivation has meant the difference between still having it, or not having it. Those believers in Noah and the great flood would have to believe that all existing animal life has originated from just two individuals of each species.

A further very important spin off from cultivation of a species is the inevitable isolation or development of improved forms – bigger flowers, more flowers, better colours, better plant form, easier to grow plants etc. The commercial world, you see, runs on improved varieties, not species. This sometimes despised, “development”, plays a most important part in taking pressure of exploitation off wild populations – in ensuing their survival.

David Hockings

Thanks to Dion for this very interesting account of his travels and observations. Such information will be very valuable in the future to aid field work and help determine any changes in plant distributions.

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CONGRATULATIONS TO DAVID HOCKINGS

David has been honoured with a MEMBER OF THE ORDER OF AUSTRALIA award announced on Australia Day.

We are very fortunate indeed to have him as a member of our Study Group.

David and his wife Olive live in 'retirement' on their property at Maleney (Sunshine Coast Hinterland) where a host of native plants grow in a garden landscaped for their needs. There is always something interesting to see and the native plant nursery contains a huge selection of species, some rarely grown under cultivation.

Amongst the many native plants can be seen interesting specimens of Hibiscus, many of which have hybridized naturally. Some of these are better than the ones we obtain from planned crosses.

David had a long career with D.P.I. in Queensland and is remembered in very high regard for his advice and assistance to the Nursery Trade. He is a foundation member of SGAP which was formed in 1957. At present he is Vice President and along with Olive both are Life Members.

David has served as SGAP Regional President on several occasions and has written a number of horticultural books.

Please read his comments on page 12 of this Newsletter titled "Should Rare Plants be Brought into Cultivation to Help Ensure Their Survival"?

We would like to continue this discussion with our members,
