

Everyone was wanting and needing good autumn rains this year but no-one could have anticipated the deluge that East Gippsland suffered recently at the same time leaving the north west of the state still dusty. In the N.T. Katherine was inundated at the beginning of the summer and storms wreaked havoc elsewhere. Then we had our share of bushfires and I often marvel at the ability of people generally to set to and start again. My two grandmothers were lucky to live through terrifying fires but both thought that floods were worse because fires left the land clean, floods could leave a rotting mess and sweep away precious topsoil too. My sympathy goes out to all of you affected this way.

Now is a fine time to assess the state of our gardens and tidy up before the warmer weather wakes up the weeds. Most of my older hakeas have grown too tall for me to reach the flowers. Hakeas love light and will keep on trying to top other plants nearby even when they may be very tall eucalypts. This is very apparent in suburban conditions when they compete with tall street trees and two-storey houses. My neighbours on one side tell me when *H. francisciana* and *H. petiolaris* are out and what a lovely show they are making! Don Weybury gave me a seedling of *H. crassinervia* (Burrendong Beauty) a few years ago and to my delight it has produced its first flowers, a pretty shell pink although they age to a deeper colour. It is an upright shape but in time may be like the parent plant.

FLORA OF AUSTRALIA - HAKEA (Volume 17). As you may be aware, this volume did not become available last October as expected because of some unknown problem. The news now is that the earliest it will be published is late this year and the latest is February 1999.

Meanwhile a book called HAKEAS OF W.A. : BOTANICAL DISTRICT OF AVON has been produced by the W.A National Parks and Reserves Association (WANPARA) to assist farmers and landholders battling land degradation in the Avon district.

Written and illustrated by amateur botanist Jennifer Young, HAKEAS of W.A: BOTANICAL DISTRICT OF AVON is a small book (11 cms x 21 cms) of 125 pages with coloured photos of 55 species and excellent line drawings together with written descriptions of 44 species. There are also charts of flowering times, soil types and uses for the species listed. Dr. Laurie Haegi has supplied data on two new species, *H. hastata* and *H. rigida*. Altogether, this is a very good addition to our libraries. It is available from WANPARA, PO Box 270 Maylands 6931 and costs \$15.00 plus \$5.00 postage.

Warren and Gloria Sheather, Yallaroo, Bundarra Road, Armidale NSW 2350 (02-67752205) have sent the following report of their experiences growing hakeas.

We have been growing native plants on the Northern Tablelands of New South Wales for many years. Two years ago we left our first native garden of two hectares and have started again planting a much larger area. Over this period we have also been involved in planting natives on the campus of the University of New England. Hakeas have figured prominently in all these horticultural activities and we would like to share some of our success in the cultivation of this interesting genus.

Hakea dactyloides and *Hakea eriantha* are two local species that are surviving and thriving in our garden. Both species have broad and narrow-leaved forms. There is a broad-leaved form of *Hakea dactyloides* which grows on the escarpment country near Dorrigo. This form branches almost from ground level, reaches a height of about three metres and is an excellent hedge or screening plant. There is an interesting narrow-leaved form of *Hakea eriantha* which grows east of Armidale.

Hakea microcarpa is a small shrub which grows in local wetlands and could be planted on the margins of dams. This species will adapt to dry conditions and produces masses of white flowers in spring.

Hakea macrorryncha is a tall prickly shrub from Torrington. This species has survived and thrived in a number of local gardens. The large fruit are a feature of this hakea. Torrington is a botanical treasure chest north of Glen Innes.

Hakea ochroptera occurs east of Dorrigo on rocky outcrops. This species has been split from Hakea macreana which comes from the Southern Tablelands of New South Wales. Hakea ochroptera grows into a tall shrub with masses of white flowers in spring. A specimen has survived and thrived on the University campus for many years.

The pink flowering form of Hakea sericea is an outstanding prickly shrub. The masses of pink flowers which appear in late winter, brighten local gardens. The white flowering form provides a haven for finches and other small native birds.

We collected seed from Hakea constablei in the Blue Mountains a number of years ago. This species is a tall prickly shrub with masses of white flowers and large almost rectangular fruits. We have a specimen which is about eight years old and has survived many New England frosts.

Two species from Western Australia, have proved to be successful in local gardens. Hakea petiolaris has grown into a shrub about three metres tall. The clusters of cream-purple flowers are a magnet for honeyeaters and the leathery, almost translucent leaves are a magnet for human visitors to the garden. Hakea verrucosa is another successful introduction to local gardens. This species has grown into a tall, prickly shrub with pink to reddish flowers. A large specimen which is growing in an Armidale park is one of the most spectacular native plants in an Armidale public area.

THANK YOU for this report Warren and Gloria. Because W.A. has the greatest number of Hakea species and they grow so well in the southern states, we rarely hear of species in northern N.S.W. and Queensland being grown in gardens.

Last year I had a note from Cynthia Beasley (formerly at Rushworth but now in Watson A.C.T.) who said that in spite of frosts of -2' and -5' her hakeas were standing up quite well. She has a Hakea pendens close to a house wall and sheltered by a side wall which she didn't think would be safe and considering where it comes from in W.A. but so far so good.

WELCOME TO NEW MEMBERS

- Linden Barrey, 15 Stock Drive, Pt. Elliot 5212.
- S. A. Bloomfield, 17 Ralston Rd, Nelson's Plains 2324.
- John Burrell, 680 Bruce Crescent, Warnervale 2259.
- Julie Neilson, MS 2234 17 Ralston Rd, Meringandan 4352.
- Hartley Tobin, Ningan, Bass Highway, The Gurdies 3984.

FINANCIAL STATEMENT 1996-98.

Balance c/forward		998.90
Subscriptions		384.05
Bank Interest		<u>6.86</u>
		1389.81
<u>Expenditure</u>		
N/L Ph-copying	30.00	
Postage	44.00	
F.I.D.	.22	
Stationery	<u>2.35</u>	<u>76.57</u>
Balance as at 30.6.98		<u>\$1313.24</u>

The reason this newsletter has been delayed is that last spring I damaged the cartilage in my left knee, waited till 30th December for an arthroscopy and since have waited through a painful recovery. I had not realised how incapacitated I would be or so frustrated when making a cup of coffee was a major achievement!

In the forthcoming treatment of *Hakea* Schrad. (Proteaceae) for the "Flora of Australia" (R.M. Barker, W.R. Barker & L. Haegi in press), the species are arranged in informal groups since the infrageneric classification is still being tested and modified. This work presents a key to the group of species of *Hakea* known as the "Pedunculata" group, typifies each of the species and describes a new subspecies of *H. stenophylla*.

Hakea pedunculata group

The Pedunculata group of *Hakea* species is distinctive in having an axillary peduncle below the terminal buds or flowers. In all other species of *Hakea* the flower-bearing rachis arises directly from the axil and has flowers along its full length, but in this group of species there is a distinct non-flowering portion which has been designated as the peduncle. The peduncle is initially simple in all species, but may have two or three buds capable of developing further to produce a branched peduncle.

The group is further defined by being small trees or, more rarely, shrubs often with thick corky bark, obscure venation on the simple flat or terete leaves and large, distinctly woody and tardily dehiscent fruits which are retained on the plant on a much thickened rachis. These fruits are neither horned nor beaked, but they are apiculate and usually only one develops from each inflorescence. The only other *Hakea* group to be small trees with thick corky bark and occupying the same area as the *H. pedunculata* group is the group commonly known as the Corkwoods. These are easily distinguished from the *H. pedunculata* group since they produce multiple fruits from the one inflorescence. These fruits are not noticeably woody and at maturity they open readily and are not retained on the plant.

Key to species of the *Hakea pedunculata* group

- 1 Flowers white-pubescent on pedicel and claw, ferruginous on limb; pollen presenter a sub-erect cone; pistil 1.5-2.5 mm long
- 2 Leaves flat, linear to narrowly obovate, 1-9 mm wide; shrub or small tree to 7 m high [tropical NT, Qld, WA; flowers Nov.-Mar. with sporadic occurrences up to June] 1. *H. arborescens*
- 2: Leaves terete, 0.7-1 mm wide; tree to 10 m high [Cape York Peninsula, Atherton region and north; flowers Nov.-Mar. with sporadic occurrences up to June] 2. *H. persiehana*
- 1: Flowers with only white hairs, these sometimes lacking on pedicel and claw; pollen presenter an oblique disc; pistil 7-13 mm long
- 3 Leaves narrowly to broadly obovate, 8-25 mm wide; peduncle subglabrous, not branched; branchlets glabrous; claw of perianth glabrescent, limb pubescent; fruit 2-3 cm long, 1-1.2 cm wide; seed occupying whole valve [mangrove or swamp areas of Cape York Peninsula, N of Cooktown; flowers Apr.-Aug., rarely as early as Feb.] 3. *H. pedunculata*
- 3: Leaves linear to narrowly obovate, 1-4(15) mm wide; peduncle white-pubescent, often branched; branchlets appressed-pubescent; claw and limb of perianth pubescent; fruit 3-4.5 cm long, 2-2.6 cm wide; seed not occupying whole valve [Onslow to Murchison River, WA; flowers May-Sep.] 4. *H. stenophylla*

Key to subspecies of *Hakea stenophylla*

- 1 Spreading shrub, usually less than 2 m tall; fruiting valve with red-brown wood zone 1.5-2.5 mm wide, pale wood zone 3-6 mm wide; seed covering c. three quarters valve surface; fruit apex erect, or if recurved, usually recurved away from red-brown layer of valve subsp. *stenophylla*
- 1: Erect shrub or small tree to 4 m high; fruiting valve with red-brown wood zone 2.5-4 mm wide, pale wood zone 8-10 mm wide; seed covering c. half valve surface; fruit apex erect or, if recurved, usually recurved towards red-brown layer of valve subsp. *notialis*