

Fig Trees

Genus Ficus

Because of my interest in trees, woody shrubs and the timbers they produce, I have become more interested in the Botanic Gardens of Adelaide. There is no doubt that this interest was initially fostered by the late Neville Sanders, whom I counted as a special friend. I became a 'Friend of the Adelaide Botanic Gardens' in 2007 and in February this year began a course of instruction to become a Garden Guide for the 3 Botanic Gardens (Adelaide, Mt Lofty and Wittunga). I am still part of a trainee group in the process of being assessed. I have found the whole experience as very interesting and rewarding and wish that I had taken it on 10 years ago. Our training group has continued to meet weekly, with each of us preparing a presentation of some aspect or theme of the gardens. I have done some research on *Ficus* for a presentation in late July, and thought that much of the content would be of interest to members of the Woodgroup. So if you "give a fig" please read on.



Derivation of names

Ficus - (pronounced faik:ls) from ancient Latin for the name for the Figs.

Botanic Gardens, Adelaide - Fig Tree Drive

Genus Ficus

A large Genus of more than 800 individual species of woody trees, vines, shrubs and epiphytes (plants which grows on another but do not get food etc, as do parasites). Most are found in India, Malaysia, Polynesia and New Guinea, but there about 40 species found in Australia, the majority of which are from Queensland, especially in the rain forests of the north east. They belong to the Family *Moraceae* which includes the Mulberries (*Genus Morus*) and interestingly the Osage Orange (*Genus Madura*).

The most famous of the figs is the common or domestic, succulent edible fig, *Ficus carica*, which originated from the Middle East and Eastern Europe and is now widely cultivated across the world for its fruit. The fruit of most other

species are edible, if not particularly palatable to humans. They form an extremely valuable part of the food chain for birds and animals.

The Tree

As could be expected from such a large Genus, a great diversity of size and form exists. They range from the small climbing fig to the very large spreading Moreton Bay Fig in Australia or even larger Banyan of India. As a generalisation there are some common features amongst the fig trees.

Most species have:

- Broad leaves which produce white sticky latex when broken.
- Adventitious or aerial roots which thicken with age. The root systems of figs are notorious for creating damage to house foundations and for their invasive behaviour with sewer and drainage pipes.
- Aerial Roots
- Buttress Roots
- Fruit which are quite unique in that the flowering parts are all contained within the fruit. They rely upon a special relationship with small wasps which breed within gall flowers inside the fruit receptacle and in the process fertilise the true flowers. Upon fertilization the fruit swells and the wasps escape.



Aerial roots



Buttress roots

Amongst the figs which grow in Australia there are many having interesting form.

Strangling figs

A large number of the figs are known as strangling figs. These trees are often referred to as hemi-epiphytes. Birds drop seeds in crotches and fissures well above the forest floor. The seed germinates and sends fine roots down to

the ground. They thicken and finally support the tree which becomes independent of the host. In many cases the host dies and rots away leaving interesting scaffold effects. There are some good examples of this in the Bunya Mountains National Park (Queensland). The most striking example of a strangling fig is the famous "Curtain Fig" growing in rainforest on the Atherton Tableland in northern Queensland.

Moreton Bay fig

The best known of the Australian Figs is the Moreton Bay Fig (*Ficus macrophylla*). Although they are classified as stranglers, most are seen as normal trees, although they are characterised by their immense buttress base and large root system. This root system is greatest when the tree is growing in the open and it provides additional support. In forest Avenue - now named Murdoch Drive, in the Botanic Gardens is said to be the oldest avenue of figs in Australia and was planted in 1866.

Banyans

Although not native to Australia, Banyan (*Ficus benghalensis*) is of special interest. It is sometimes called the walking fig. It is a strangling fig and continues to send out aerial roots which eventually become indistinguishable from the main trunks, thus ever increasing the size of the tree. One planted in Hawaii in 1873 now covers 2/3 acre.

Cluster Figs

Some of these are native to Northern Australia. They are characterised by having large clusters of figs growing directly from the trunk and major branches. The common one is *Ficus racemosa*.

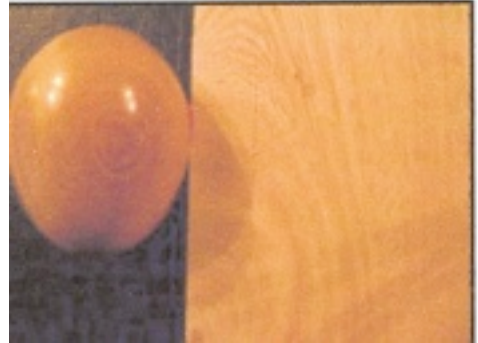
Sandpaper Figs

Also quite common in Northern Australia. It has scabrous leaves, meaning rough to touch, having numerous stiff hairs or bristles, thus the name. It is reported that they were used by Aboriginal people for smoothing wooden items like coolamons (wooden dishes). Common species in Kakadu are *F. opposita* and *F. scobina*.

South Australia. Although Figs are usually confined to the rain forests or monsoonal areas of northern Australia, one species, the Native or Desert Fig (*F. brachypoda*) grows in the very arid areas of Central Australia, in South Australia in the Pitjantjatjara lands.

Timber

Figs are not considered to be important commercial timbers. The following timber qualities are related to Moreton Bay Fig but are likely to be typical of other large figs. Pale greyish brown in colour. Although a softwood and light in weight it is quite tough and can work well to produce a silky lustre. It is sometimes a little woolly to dress, and often shows a pale cedar like figure, especially White Cedar.



samples of the timber

Ron AIen