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Dear Members,

This will be my last newsletter to you as leader of the Eucalyptus Study Group. I have now been the leader for nearly eight years and I felt that it was time to hand over to someone with new enthusiasm and new ideas. Fortunately a young, energetic and very enthusiastic specialist in eucalypts has come forward. He is Mr Tony Bean whose address is P.O. Box 397, Nambour, Qld. 4560. Present indications are that I will hold the seed bank and be the leader until about October when the seed bank, files, bank account etc. will be transferred to Tony. I went with Tony on a recent trip to the Northern Territory and the Kimberley area of W.A. and I can assure you that I have never seen anyone so keen on spotting and identifying species that we had not seen before. From the bus he would sight what he thought was a species that we have not collected before, and as soon as the bus stopped would be out after a specimen even if this meant climbing the tree. His ability to correctly identify species that he had not previously seen is something we would all like to possess.

Now for a short summary of the trip to the Kimberleys from which I have just returned. It is the main reason that the newsletter is a little bit late in being sent out. About 40 S.G.A.P. members went on a three weeks bus trip. We started from Brisbane travelled north west across Queensland, west across the N.T., and across the Kimberleys as far as Broome. We camped in two man tents at night mainly in caravan parks but sometimes in camping grounds at National Parks. On the way out we travelled through Charleville, Winton, Cloncurry and Mt. Isa in Queensland, then on to the Three Ways in the centre of the N.T. From there we travelled north up the Stuart Highway to Dunmarra then took the road to Top Springs. From there we went through the Jasper Gorge area to Timber Creek then on to Lake Argyle (Ord River Dam). We stayed there two nights and enjoyed a boat cruise on this inland sea and sighted a number of fresh-water crocodiles. After stopping briefly at Kununurra we went onto Halls Creek. The ground at this small Kimberley town is ironstone and so hard we had difficulty driving in tent pegs. Next day we went west across the southern Kimberleys through Fitzroy Crossing and on to Winjana Gorge where we stayed two nights. Although new road works are in progress, most of the 301 kilometres of highway between Halls Creek and Fitzroy Crossing is unsealed and usually rough and very dusty and takes most of a day to travel. Winjana Gorge is formed where a river cuts through a range that was once a coral reef. This has formed high, almost sheer cliff of the gorge. In the wet season water rushes through it but as it was the dry season we walked along the banks of river that was barely flowing. Not far from Winjana Gorge is Tunnel Creek where a stream goes underground through a range. It has formed a "tunnel" for nearly a kilometre and as it was the dry season the stream was barely running and we worked the full distance through the tunnel. A good torch is required as the tunnel is very dark. We then went onto Derby where we stayed the night and saw the boab prison tree. Next day we went onto Broome. After sightseeing and spending a night in that very interesting town we headed back east to Geike Gorge National Park. There we took a boat trip through the beautiful gorge cut by the W.A. Fitzroy as it cuts through what was once a coral reef. The shapes and patterns of the rock faces have to be seen to be believed so I am not going to try to describe them to you. From there back across the rough very dusty road to Halls Creek where we saw what is known as the China wall. This is a formation of rock above ground level that resembles a man made wall as it runs in a line across the hills. Just near the wall we found the rather rare eucalyptus, *E. cupularis* (Halls Creeks White Gum). Then we went on to Wyndham for a night. Next day we commenced the trip back across the Territory travelling to Katherine Gorge National Park. Here we went on a boat trip along the gorges. They were quite different from those seen in the Kimberleys. Then we made our way back down the highway to Elliot staying at Mataranka Hot Springs for a short stop. Our return journey took us to Tennents Creek, on to Mt. Isa, then through Boulia to Winton, then to Charleville to Brisbane.

Throughout the whole trip, we stopped whenever we saw some interesting plants new to us, collected specimens and tried to identify them. While most of the others were more interested in looking at smaller plants, Tony and I had our sights on bigger plants, the eucalypt trees. Of the 45 to 50 species of eucalypts that grow in the northern part of the N.T. and in the Kimberley Region we sighted, examined and identified 30 to 35 of them. With a few exceptions they were species we had not seen before. Although we apparently missed a few species in the areas we passed through most of those we failed to find were growing in the higher rainfall areas of the North Kimberleys and Arnhem Land and we did not go far into these areas. As far as Tony and I were concerned it was a very interesting and successful trip. We sighted and identified many eucalypts new to us including some rather rare and unusual species. I collected seed of some of them while Tony collected specimens. Although most of the species were new to us, actually I found that their identification was generally easier than I anticipated.

I will not go into detail about the species that we found. Perhaps Tony may do that in later Newsletters. However, I would like to mention some of the more striking and interesting trees we saw. The *E. camaldulensis* (river red gum) of the inland streams are very beautiful with their weeping green to greyish foliage and almost white trunks contrasting with the more sombre foliage and grey trunks of *E. microtheca* (coolibah). The short white trunks and bushy crowns of *E. brevifolia* and *E. leucophloia* contrast with the arid hills on which they grow. The unusual leaf form of *E. perfoliata* (twin leaved bloodwood) and the varying shapes and sizes of the fruit and leaves of the other bloodwoods make them an interesting group to study. The large red buds and fruit of the malle, *E. pachyhylla* (red-budded malle) growing in the centre of the N.T. made us wish that we could grow it more easily in the higher rainfall areas of the east coast. Perhaps the most beautiful of all was the flowers of *E. eminiata* and *E. phoenicea*.

Now for any of you who are planning a trip to the areas we went into, if you have not been, I consider the trip well worthwhile. To make it worth while you would need at least 3 weeks from Queensland and Western Australia and probably 4 weeks or more from the other states if you drove the whole way. With the exception of the road between Fitzroy Crossing and Halls Creek we found the main roads generally in fair to good condition and can be used by a good sized family car although a four wheel drive vehicle would allow you into more areas particularly the northern part of the Kimberleys. Generally sources of fuel and supplies are adequate but even on the main highways, service stations and shops can be over 300 kilometres apart. Where possible camp in the caravan parks in the small towns, as these provide much appreciated toilet and washing facilities. As demand is heavy it is advisable to book into them well ahead of the planned trip. Travelling in these areas is usually limited to the dry and cooler season between May and September. I would suggest the earlier part of this period as because of lack of rain and the powdery nature of the soil, roads and camping areas will quickly become dry and dusty. Besides, the smaller plants in particular, dry off as the dry season progresses and more areas will be burnt by fires. With regard to identifying the eucalypts in the area that you pass through, I recommend that before you start you find out where a species is likely to occur, the type of country it grows on and from photos and sketches try to visualise what the species will look like when you first sight it. I did this, and as well Tony also made out an identification "key" and the preparation is probably the reason, that with a few exceptions, we did not have much difficulty in positively identifying species.

The last 6 months has been a fairly quiet period for the group with only a few letters to answer and a few orders for seed. I trust that with the new leader and the coming of spring there will be renewed interest in the group and in the study and propagation of eucalypts. For those of you who have not paid your annual subscription it is now due. It is still \$2 for this financial year. Now I wish you all the best and please continue to plant the countryside and suburbs with more eucalypts. If any of you wish to continue corresponding with me, please do so as I intend to remain an active member of the group and will keep close contact with Tony Bean.

Following is a continuation of a brief description of species of the Ash Group and related species that was commenced in the last newsletter.

E. delegatensis MAKBE. Alpine Ash, Page 184 of Forest and Trees of Australia -370 of Blakely. This large tree grows on the Australian Alps and adjoining high country in southern New South Wales and N.E. of Victoria, and is common over much of the high country of Tasmania. Best development is on moist but well drained loams where it grows at higher altitudes than most commercial timber species. It commonly grows to heights of from 50 to 65 metres and can be found at altitudes of up to 1 500 metres. In its habitat, summers are cool, winters cold, frosts common with light to moderate snow falls in winter. Bark is brown, thick, fibrous, persistent on lower half of the trunk but decortivating above in strips to leave a smooth blue grey to white surface. Adult leaves are dull green, concolorous, lanceolate 7.5 to 17.0 by 2.0 to 5.0 cm. Buds are club shaped 0.75 by 0.6 cm which fruit is club to pear shaped 1.2 by 1.0 cm. This large tree can usually be identified by its brown fibrous bark on lower trunk and large glaucous inter-mediate leaves.

E. regnans MAKCA. Mountain Ash, Page 182 of Forest Trees of Australia - 369 of Blakely. This is one of the worlds tallest forest trees. It grows in Victoria where it is largely restricted to the mountains of the east of the state while in Tasmania it occurs in the N.E. and S.E. and in the valleys of the Derwent and Heon Rivers. Best development is found in sheltered deep mountain valleys where it prefers deep loams over clay. In Victoria it is generally found at altitudes from 160 to 900 metres but in Tasmania it grows from near sealevel to 600 metres. It commonly grows in height from 50 to 80 metres but trees over 110 metres have been recorded. In its habitat summers are cool and winters cool to cold. Frosts and snow are liable to occur throughout much of the year. Bark is rough sub-fibrous on the base of the trunk above which it is shed leaving a smooth, white or greenish grey surface. Adult leaves are narrow lanceolate, curved, shining green, concolorous 10 to 17 by 2.0 to 2.5 cm. Buds are club shaped 0.6 by 0.5 cm, while fruit is ovoid to pear shaped 0.7 by 0.6 cm. This specie is rather a distinctive specie with its tall straight trunk and bark type and should be relatively easy to identify.

E. fastigator MAKEB. Brown Barrel, Page 180 of Forest Trees of Australia - 368 of Blakely. This is a moderately large tree which grows on the Southern and Northern Tablelands of New South Wales and coastal escarpments with a small extention into the high country of E. of Victoria. It occurs mainly in valleys, on slopes and edges of tablelands where its best development is on better quality loamy soils. Its altitude range is mainly between 600 and 1300 metres although in the south it does descend to 150 metres. In its habitat summers are mild with winters cool to cold with frosts and snow occurring during several months of the year. Bark is brown and fibrous on trunk and larger branches but decorticates from smaller branches leaving a smooth white surface. Adult leaves are obliquely lanceolate, shining green, usually concolorous and 10 to 17 to 2 to 3 cm. Buds are club shaped 0.6 by 0.5 cm while fruit is pear shaped, hemispheric or conic and 0.6 by 0.5 cm. This tree has a fairly distinctive bark pattern.

E. orcaedes MAKADA. Blue Mountain Ash, No. 16 of Forest Tree Series Leaflets - 380 of Blakely. This large tree has its main habitat on the Central Tablelands of New South Wales but it also occurs on the escarpment inland from Port Macquarie and on the border ranges between New South Wales and Queensland. Its principal occurrence is on Hawkesbury Sandstones but it only reaches its best development where the soil is moderately deep and well drained. It usually grows at altitudes between 800 and 1300 metres. Summers are relatively mild and winters cool to cold with frosts and occasional snow in some areas. Bark is gum type decortivating freely in long strips from branches and all of the trunk except for a short basal stocking. Adult leaves are lanceolate to falcate, dark green, concolorous and 8 to 15 by 1.5 to 2.5 cm. Buds are clavate 0.7 by 0.2 while fruit is avoid globular to subpyriform 0.7 by 0.6 cm. The oblique falcate leaves, bark pattern and fruit type help in its identification.

E. luehmanniana MAKOB. Yellow-top Malle Ash, No. 32 of Forest Tree Series Leaflets - 378 of Blakely. This is a malle type sparsely branched large shrub which can grow up to 6 metres in height. Its natural habitat is restricted to a small area of poor coastal land just to the north and south of Sydney. It grows mainly on poor shallow sandy soils on the plateous and ridge tops. Climate is warm coastal with few frosts. Bark decorticate in long thin strips leaving a smooth white surface.

Adult leaves are lanceolate, concolorous, very thick and 15 to 17 by 2.5 cm. Buds are diamond shaped 1.2 by 0.5 cm while fruit is ovoid-truncate to sub-cylindrical somewhat corrugated and 1.0 by 0.8 cm. This very distinctive specie has a yellow to red colouration on leaf and bud carrying twigs which extend to the midrib of the leaf. Although only a mallee it is considered to be closely related to *E. oreacles* which is a large tree.

E. considiniana MAKEA, Yertchuk, Page 188 of Forest Trees of Australia - 373 of Blakely. This moderate sized tree occurs in coastal New South Wales, south from Sydney and into east Gippsland in Victoria where it grows on poor soils both on the coastal lowlands and adjacent tablelands. These areas have mild to warm summers and cool winters with frosts and some light snow on the tablelands. Yertchuk is usually a minor specie in mixed eucalypt forest but on the poorer sites may become the dormant specie. Bark is of unusual type, fibrous, intermediate between a peppermint and a stringybark, rough but flaky and persistent to the smallest branches. Adult leaves are lanceolate to falcate, grey-green concolorous and 10 to 18 by 1.5 to 2.8 cm. Buds are clavate 0.5 by 0.4 while fruit is turbinate to pyriform and 0.7 by 0.6 cm. The distinctive feature of this specie is its unusual rough bark which is slightly prickly to the touch and persistent to smallest branches.

E. remota MAKEB, Kangaroo Island Mallee Ash, No. 128 of Forest Tree Series Leaflets - 375 of Blakely. This small multi stemmed mallee, which grows to a height of about 4 metres grows only on Kangaroo Island in South Australia where it grows mainly on the higher central and western parts of the island. This mallee occurs on a range of soil types on gentle to moderate hill slopes. Climate is warm sub-humid but modified by the proximity of the sea. A variable amount of fine subfibrous bark persists at the base of the larger stems but above this it decorticates in long thin strips to leave a smooth whitish to light grey surface. Adult leaves are lanceolate, falcate coriaceous, dark green, slightly shining, concolorous and 7 to 15 by 1.7 to 3.2 cm. Buds are clavate 0.9 by 0.3 cm while fruit is hemispherical to truncate - globoid 0.5 by 0.6 cm. This is the only specie of mallee ash that occurs only in South Australia. The other members grow mainly in eastern New South Wales and Victoria. Its limited habitat on Kangaroo Island and distinctive bark and leaf type made it easy to distinguish from other species on the island.

E. sieberi MAKEB, Silvertop Ash, Page 186 of Forest Trees of Australia - 371 of Blakely. This specie is usually a moderate size tree along the south coast of New South Wales but in the good forest soils of east Gippsland it grows into a large forest tree up to 45 metres in height. The principal occurrence of *E. sieberi* is on the south coast of New South Wales and between the mountains and the sea in E. Gippsland in Victoria. It grows on a wide range of soil types usually on undulating to hilly country. Summers are mild and winters cool with some frosts and occasional snow at higher altitudes. Bark is dark grey to very dark brown, persistent on trunk and main branches but decorticating from upper branches leaving a smooth white surface. Adult leaves are lanceolate dull green concolorous and 7 to 15 by 1.5 to 5 cm. Buds are club shaped 0.6 by 0.4 cm while fruit is pear shaped, conic or hemispheric and 0.9 by 0.7 cm. The distinctive bark which is more furrowed, darker and harder at base of mature trees and the typical ash type leaves make it fairly easy to identify.

E. multicaulis MAKEE, Whip stick Mallee Ash, No. 31 of Forest Tree Series Leaflets. On poor sites this specie is a many stemmed mallee up to 6 metres in height but on better sites it can grow into a small tree up to 12 metres in height. It is found on parts of the Central Coast and lower areas of the Central Tableland of New South Wales where it grows on broad ridge tops and hill slopes of the Hawkesbury Sandstones. Summers are warm and humid but winter mild with only a few frosts at the higher levels. Bark decorticates to ground level on the typical small stems leaves, a gum type surface but on larger specimens some rough bark may be retained at the base of the trunk. This specie has two types of adult leaves depending on location. Those of the higher area are lanceolate, slightly oblique, dull green, concolorous and very coriaceous and 7 to 10 by 0.7 to 1.0 cm while those from other areas have leaves that are lighter green in colour and 15 by 2.5 cm. Buds are clavate 0.9 by 0.3 cm while fruit is pyriform or top shaped and 0.8 by 0.6 cm. Stunted form of *E. considerana* and *E. sieberi* may have some resemblance to *E. multicaulis* but they retain some rough basal bark while *E. multicaulis* usually sheds its bark to ground level.