# KATOOMBA AND DISTRICT WILD LIFE CONSERVATION SOCIETY



## \*\*\*\*\*\* No.1 -- The Creek Community \*\*\*\*\*

Closely confined to the moist atmosphere of the creek and the protection of its steep banks, some rainforest trees with dense foliage occur, keeping the area cool and shady. Thus few flowers are to be seen, and the ground is carpeted with ferns. InAustralian forests, however, the trees themselves bear lovely flowers in season. In this area Coachwood (Ceratopetalum apetalum) has red flowers, the "tree" Lomatia (L. myricoides) cream flowers, and the Possum Wood (Quintinia sieberi) white flowers.

The main ferns are: The King Fern (Todea barbara), the Water Fern (Blechnum procerum), Umbrella Fern (Sticherus sp.), and Tree-Fern (Dicksonia antarctica).

Dominating this group of plants are some fine specimens of the Blue Mountains Ash (Eucalyptus oreades) which have intruded from the surrounding Eucalypt community. At their bases are clumps of the Brown-seeded Rush (Gahhia psittacorum)

# No. 2 -- Wet Sclerophyll Forest

As the track winds round the hill, the slender, graceful Blue Mountains Ash still dominates the slope, accompanied by the Sydney Red Gum (Angophora costata) with reddish trunk and opposite leaves, and the Cedar Wattle (Acacia elata)—a tall, dark—trunked tree which carries pale cream—coloured flowers in the summer.

Beneath these trees is a dense community of tall flowering shrubs and undershrubs protecting the light sandy soil on the steep slope. Howers may be found most of the year:— Sweet-perfumed Heath (Woollsia pungens) in the winter, and Beard Heath (Leucopogon lanceolatus) in spring; The Daisy Bush (Olearia elliptica) in the warmer months, and Banksias in autumn and winter. Among the undershrubs is a pretty little Guinea Flower (Hibbertia monogyna) and also the Red-flowering Heath (Styphelia tubiflora).

A very large specimen of the Sydney Peppermint (Eucalyptus piperita) is close to the track.

Note No.3 also refers to a section of this area).

# No.3 - Soil-making

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"Imagine a land of stone, a silent landexcept for the sounds of rain and the winds that swept across it". Such has been the sur-

We read of the emergence of life from the sea and the clothing of our world with its marvellous green mantle during the vast ages of geological time. Pause on the Nature Trail and see this work continuing. Plants and soil exist in harmony. Without plants to bind them the particles of crumbling rock would be carried away by wind and water. All the time the plants add to the soil the vital elements of the life they are able to draw from the sun.

On the high side of the track a mass of rocks is being broken down into soil, very —very slowly, but surely. Here the rocks carry a very interesting group of plants. The grey-green lichens have no true roots but they are able to live on the rocks. They secrete an acid which helps to disintegrate the stone, forming tiny pockets of soil in which the mosses take root, and as they die, help to form soil in which small ferns and more advanced plants are able to grow. Dragon's Tail (Dracophyllum secundum) is a typical rock-plant with its smooth, tapering, green leaves. Trigger Flower (Stylidium graminifolium) with tufted leaves can also be seen clinging to the stone, with the RockEpacris (E.reclinata) —which reclines on the rocks as its descriptive name indicates.

/Seedlings....

Seedlings of the Water Gum (Tristania laurina) have taken root in the soil-pockets on the rocks, and it is easy to see how the pressure of their roots has split the stones and forced them apart. So the larger plants take root and help build soil.

#### No. 4 -- Dry Sclerophyll Forest

Typical Dry Sclerophyll Forest is reached as the trail turns to the west side of the hill. Sclerophyllous plants have hard stiff leaves and are able to withstand long periods of dry weather. But at the same time they can take up and give off very large quantities of water when it is available. This can be observed when wildflowers of this hard-leaved type and gum-leaves are placed in water. They will quickly draw up the water from the container. (But do'nt Gather them in a Reserve to try this experiment!).

The most prominent tree in this area is the Sydney Peppermint (Eucalyptus piperita), sometimes bearing clumps of reddish Mistletoe (Amyema miquelii). Eucalyptus trees do not make a full shade, so they are associated with dense undershrubs which protect and shade the soil and help to keep drying winds—hot in summer and cold in winter—from blowing the soil away, and drying out the adjacent more lush areas of forest.

Eggs-and-Bacon (Dillwynia retorta) Grows in profusion with its yellow and red pea-flowers. Hakea dactyloides, with tufts of creamy flowers in the axils of the leaves, and Tea-tree (Lepto-spermum flavescens) may still be seen in profusion. The Honey flower or Mountain Devil bush, (Lambertia formosa) the fruits of which have a quaint resemblance to a little devil with two horns, is common to all dry sclerophyll areas. Its heads of seven red tubular honey coloured flowers are to be found in most seasons but particularly in Summer and Autumn.

### No. 5 -- Water emerges above the Rocks

As the track winds and turns down sharply moisture seeps over the rocks. Here Bauera rubicides grows in abundance above the fine plants of Mountain Moss (Lycopodium deuterodensum) which look like tiny pine trees in the dense undergrowth. They are relics of the vegetation of the Coal Age.

The track continues above the steep gorge to Lilian's Bridge. Tall Banksias and Hakeas hold the banks while ferns appear once more on the high side of the track where the water seeps.

Leave the Nature Trail for a few minutes to view the deep gorge below the bridge. The present stream running for ages, has carved this deep narrow cleft.

Returning to the Nature Trail similar country is passed to the head of the gorge where stepping-stones cross the creek.

#### No.6 - A Place to Linger

Cross the stepping-stones. Two little streams join there and the sunny spit of land between is a good place to rest and enjoy the birds in the Banksias.

Hardy plants of Acacia botrycephala, Tea-tree, and Tristania grow on the sandy spit in contrast to the ferny bank on the protected side of the stream.

Interesting plants grow in the shelter of the rocks:— the tiny lily Allania endlicheri with matted grass—like leaves; the Rock Sprengelia (S. monticola); and the delicate white Libertia pulchella.

A shapely tree on the sheltered side of the creek is Elaeocarpus

## no. 6 -- A place to Linger cont.

Elaeocarpus holopetalus with serrated leaves—dark green, with a pale green, hairy under-surface—and bearing lily-of-the-valley—like flowers and purplish black fruits.

Flora's Bath is on the right-hand stream and Asmodeus Pool is on the left among the rocks. Look up and note the hardy plants over-hanging the high rock above.

From this point the return trip may be made by the same route or by crossing the second stepping-stones and continuing the round walk.

#### No7 - . Mossy Bank

Beyond the second stepping-stones the Trail winds up a mossy bank amid King Fern and Blechnum. Spagnum is seen in parts amongst other mosses and liverworts-- possibly some of the earliest plants to colonise the land.

On the right-hand side of the track rushes grow thickly together with the Swamp Epacris (E. paludosa) and Symphionema montanum with its bright green divided leaves. Unlike most of its relatives of the Proteaceae family, Symphionema has small cream flowers which are regular, and arranged in spikes. Like some of the Persoonias it is a relatively soft plant.

On the mossy rock-wall the slender, delicate form of Epacris crassifolia grows in company with the little fern Schizaea rupestris.

Steps lead to the top of the rocks immediately above the right-hand stream, where, contrasting with the moisture-loving foliage just passed, hardy shrubs of Banksia ericifolia and a few specimens of Cypress Pine (Callitris muelleri are to be found.

# No. 8 -- The Stream above Flor's Bath

The swampy ground which provides the sparkling water for Flora's Bath can now be plainly seen on the right of the track on the slopes. Near the swamps are clumps of Mountain Mallee (Eucalyptus stricta), while the path is lined with the Blunt-leaved Heath (Epacris obtusifolia and Bauera.

The path rises and crosses the spur through dry sclerophyll country with many species of lovely flowering plants, Tea-tree and the large-flowered Golden Pea (Gompholobium latifolium) being conspicuous, in the late spring.

The flowery bank above the track once more gives way to rock as the western side of the spur is reached.

## No. 9 -- The Swamplands

Standing on a jutting outcrop of rocks, a good view can be had of the extensive swamps which keep the main stream flowing continually through the longest drought. Above the swamp areas across the creek grows a mass of dry sclerophyll vegetation. Showing the important part it plays in the ecology as a catchment area to feed the swamp.

This dry, hard-leafed community everywhere covers the weathered sandstone on the tops of Blue Mts ridges, the areas from which water escapes through the sandy soil. As sandstone does not absorb water (for which reason it is used to construct the wall of dams and other buildings), when rainwater reaches the solid rock stratum it can penetrate no farther and gradually seeps out to the surface of the ground, sometimes on the very edge of sheer cliffs. It would then flow quickly to the valleys and away to the sea if it were not for the green masses of swamp vegetation which acts /as a vast....

as a vast

vegetable sponge, retaining the water and allowing it to escape slowly, providing the only useful source of permanent water in the area. By spraying the air with moisture in the hot months the vegetation helps to keep the Mountains fresh and healthy.

As the Trail continues there is once more a contrast in vegetation between the plants in the rock crevices, on the one hand, and the patches of swamp and dry sclerophyll country, on the other. The Sydney Peppermint is still the dominant tree in the area, with scattered Banksias and clumps of Mallee. All the way the swamplands dominate the distant scene.

#### No. 10 - Heathland

Once more steps lead upwards, this time to the top of Edinburgh Castle Rock, through a dense growth of Banksia ericifolia and Dagger Hakea (H. teretifolia). A small area of heathland covers the Rock with clumps of Mallee and various native grasses. Many lovely little flowering plants grow amid the rocks, the purple Patersonia of the Iris family, pink pea-flowered Mirbelia, Darwinia taxifolia with minute red and white flowers. Conesticks (Petrophile spp.) and Drumsticks (Isopogon anemonifolius) grow in deeper pockets of soil.

The rocks themselves are interesting in their present unspoilt forms, and a few Aboriginal axe-grooves may be found.

The view, though narrow, is distant and beautiful. A good place to rest and listen for the birds.

# No.11. Dry Sclerophyll and Another Creek Crossing

The path continues away from the Rock past old, rough-barked Tea-trees and heath plants where lichens cover the soil and cling to old wood. It descends slightly through Sydney Peppermint, Banksias; (Banksia serrata) with its grey-green foliage, and some young Black Mountain-ash (Eucalyptus sieberi).

The broad-leafed, pea-flowered Platylobium formosum, and the pale summer-flowering wattle, Acacia obtusifolia, can be seen in masses with various species of Gee Bung(Persoonia).

The creek is largely protected by King Fern and Coral Fern (Gleichenia sp. and in the Spring-time the water-course is gay with the Golden Wattle (Acacia longifolia). From the water-course the Track rises sharply to the swamp above.

#### No 12 -- Swamp Flowers

As the ascent is made to West Street a small area of swamp is traversed. It is interesting to note that the plants which grow on this wet ground are really very similar to those which cover the dry areas, belonging to the same genera but often differing in species. (Note: Aust,&N.Z. Botany — Xeromorphic plants are capable of giving off large quantities of water — no one knows how they survive drought.)

The flora in this area is typical of the extensive swamps, and can be examined easily. Beside the Trail grow Sundews (Drosera spp. and Bladderwort (Utricularia dichotoma), both carnivorous plants which obtain nitrogen from the bodies of insects: heaths such as Sprengelia incarnata and Epacris paludosa; the swamp Spider Flower, Grevillea acanthifolia; and the Kyris with its three yellow petals emerging from round dark heads on long green stems. Swamp Teatree '(Leptospermum lanigerum) and many other plants will be seen.

Finally a lovely view of the valley can be had from the dry area above the swamp, where an occasional Waratah (Telopea speciosissima) can be seen. Continue up the track to West Street.