

Beech Trail – Track Notes

These notes should be read in conjunction with the Beech Trail brochure, which contains comprehensive information and a map of the trail. The notes provide a brief outline of some of the main features of the vegetation of the Mount Baw Baw Alpine Resort, together with comments relating to particular species. The numbered sections in these notes correspond to numbered markers/posts along the trail and contain information relevant to a plant or other feature in the immediate vicinity of each marker/post. This information will hopefully improve your knowledge, and identification skills when you encounter these plants, etc., elsewhere along the track and in the resort.

In addition to noting various features of the vegetation, there are many other items of interest. These include wombat burrows and wombat droppings, plus scats (faeces) of other mammals (– dog, fox, cat ??). You will see various birds, particularly currawongs; skink lizards, snakes; spiders – the wolf spider has an underground nest with a round access hole 1 – 2cm in diameter – look for them along the trail; round mounds of dirt around small holes, made by yabbies; grasshoppers, Bogong Moths, butterflies, etc., etc.....

In the resort, please stay on the trails, and try to walk around rather than through any wet areas on the trails, which are due to local drainage and/or recent rain. It is particularly important to not walk across areas of *Sphagnum* moss (see below) and other plants in the floors of wet valleys.

Near base of Maltese Cross T-bar. There are two main types of vegetation which occur naturally within the resort – subalpine woodland, dominated by Snow Gum, and subalpine wet heathland in which there is a number of dominating shrub species. Open areas of grassland are mainly the consequence of clearing other vegetation for ski-runs and generally contain a large proportion of introduced grass species. A number of weed species occur in the resort area; fortunately they are largely confined to previously disturbed areas – ski runs and trails and the village area proper.

1. The medium-sized tree, with small, dark-green leaves, several metres north of the track is the Myrtle Beech (*Nothofagus cunninghamii*). *Nothofagus* is from the Greek *notho*, meaning false, and *fagus*, a beech tree – indicating that the tree differs from northern hemisphere beech trees. The species name honours A. Cunningham (1791-1839), a NSW Government botanist and explorer. Myrtle Beech is common in cool, moist, sheltered gullies in mountain forests and may be dominant in areas which have experienced a long absence of fire. Its occurrence at Mt Baw Baw, in subalpine woodland, as well as in moist gullies or drainage lines, is unusual. On the branches of some trees, a bright, orange parasitic fungus, ‘myrtle orange’ may cause woody lumps to form.
2. The strong orange-red colour on the surface of many of the rocks along the north side of the track is due to the green alga, *Trentepohlia* species. The red colour is caused by the pigment, haematochrome, which may serve to mask the plant’s green chlorophyll as a reaction to high levels of illumination. The alga comprises very numerous filaments, each only a single cell in width. Algae are an extremely diverse group of plants, ranging from microscopic, single-celled forms to giant kelp seaweeds, and may occur in both terrestrial – soil and fresh water - and marine habitats.
3. Possibly the most abundant shrub in the resort area, Mueller’s Bush-pea, *Pultenaea muelleri*, presents a vivid display of yellow and red ‘pea flowers’ from November to January. The genus *Pultenaea*, of which there are about 50 species in Victoria, is named after R. Pulteney (1730–1801), an English physician and botanist. He was also a biographer of Linnaeus (1707–1778), who established the binomial system of naming plants and animals. *muelleri* derives from Baron von Mueller, who explored the Baw Baw plateau in the summer of 1860.
4. Note the wombat burrow, possibly no longer in use. There may be other burrows along the trail – see if you can locate any. The burrow may be quite extensive – wombats have very strong legs and claws. Wombats are predominantly nocturnal, and vegetarian with hollow teeth which grow in response to wear. Usually there is only one young, which may spend six months in the backwardly pointing pouch. Wombats characteristically defecate on ‘local prominences’ – rocks or high points on tracks. This may be territorial marking but the real reason is open to speculation – what is your theory?

5. The Tasman Flax-lily, *Dianella tasmanica* produces very attractive bluish-purple flowers which have contrasting yellow stamens. The fruit is an ovoid blue berry. The genus name is a combination of the Latin *Diana*, a Roman goddess of the hunt, and *ella*, meaning small. The specific name indicates that the species also occurs in Tasmania.
6. The Fireweed Groundsel, *Senecio linearifolius*, is an opportunistic colonizer of open areas following fire and/or soil disturbance, such as along the sides of tracks and roads. The plant is not a weed – it is native and widespread in Victoria. *Senecio* is from the Latin *senex*, an old man, referring to the resemblance of the tufts of hairs on mature seeds to an old man's beard. *linearifolius* relates to the linear form of the leaves. *Senecio* is possibly the largest genus of flowering plants, with some 1500 species worldwide.
7. Mountain Teatree (*Leptospermum grandifolium*). *Leptospermum* derives from the Greek, *leptos*, slender and *spermum*, a seed, referring to the nature of the seeds; *grandifolium* relates to the relatively large leaves. Mountain Teatree is generally a large shrub, but may develop into a small tree in favourable sites. It is widespread throughout the Victorian Highlands, growing along water courses and drainage lines in sheltered areas. Occurrences elsewhere will be influenced by local drainage patterns.
8. The small, spindly 'shrub', with opposite pairs of stalkless, bluish-green leaves is the juvenile form of the Tingaringy Gum, *Eucalyptus glaucescens*. (Refer #16 below for further information.)
9. Ferns, such as the Hard Water-fern or Gaggawar (Koorie name), *Blechnum watsii*, commonly form an extensive ground cover in damp areas – look at the area several metres from the track under the trees. The genus name is from the Greek *Blechnon*, the name used for a type of fern; *watsii* derives from the Rev. W.W.Watts. Ferns reproduce by means of spores which are produced in variable structures called sporangia, which form the brown masses commonly on the underside of the leaves/fronds. In this plant, the fertile fronds (those with sporangia) are usually longer and narrower than the sterile fronds (lacking sporangia).

The low-growing shrub around the base of the Snow Gum, *Eucalyptus pauciflora*, (and the Myrtle Beech and Mountain Teatree) is the Baw-Baw Berry (*Wittsteinia vacciniacea*). *Wittsteinia* is named after Dr G. Wittstein (1810-1887), a German botanical author whose dictionary was used by Baron von Mueller; *vacciniacea* derives from *Vaccinium*, a northern hemisphere plant genus. Baw-Baw Berry is endemic in Victoria, mainly occurring only between the Baw Baw Plateau, Lake Mountain and Mt Donna Buang. Baw-Baw Berry is locally abundant at Mt Baw Baw, particularly around the bases of tree trunks and boulders. The plant's common name refers to the fruit, a small, pale green berry which is produced in mid to late summer.

10. The branches of the Myrtle Beech trees on the north side of the track support at least two different types of lichen. The foliose form, grey-green on the upper surface, black beneath, is *Hypogymnia enteromorphaeoides*. The light-green strands or filaments, sometimes called Old Man's Beard, are a species of *Usnea*. A lichen is a close, mutually beneficial combination of an alga (see #2 above) and a fungus. The alga provides 'sugars' (the products of photosynthesis), and the fungus obtains the mineral requirements for growth.

Near the base of the marker post is a mat of Bidgee-widgee, *Acaena novae-zelandiae*, the fruits of which form burrs. Individual fruits/seeds within the burr each have four or more barbed spines, whereby the burr attaches to your socks or animals' fur or feathers and the seeds are thus distributed. The leaves have been used as a substitute for tea.

11. The small yellowish/green areas comprise the moss, *Sphagnum cristatum*. As may be observed elsewhere, especially in the treeless valley floors, *Sphagnum* may extend as the main vegetation cover over extensive areas as well as forming a ground layer of vegetation underneath much of the wet heathland shrubs, e.g., look at the area across the small stream running parallel to the track. Moss beds, i.e., these areas of *Sphagnum*, function like a giant sponge. *Sphagnum* possesses a unique ability to absorb many times its weight of water and to release this slowly during the summer months. The plant is fundamental to the hydrology of and water yield from the Baw Baw Plateau and elsewhere throughout the high country in southeast Australia. If the integrity of the *Sphagnum* cover is broken, which will occur readily as a

consequence of trampling by humans and other animals, drainage channels may form and the water, otherwise slowly released, runs off quickly. *Sphagnum* does not have a common name, and is generally referred to by the scientific name of the genus, as in these notes.

The plants with the relatively large, sharp-pointed leaves, further from the track, are Candle Heath, *Richea continentis*. *Richea* is named after Claude Riche (1762-1797), doctor and botanist on the D'Entrecasteaux expedition; *continentis* alludes to the species occurring on the mainland, compared with other *Richea* species which, for many years, were thought to be confined to Tasmania. *R. continentis* is common in subalpine areas throughout Victoria, particularly near watercourses and along drainage lines. The common name, Candle Heath, derives from the candle-like flower spikes, common throughout December and January.

The small fern along the edges of the track, to the right of the marker post, is the Alpine Water-fern, *Blechnum penna-marina*, locally common in wetter areas throughout the Australian high country. It also occurs on subantarctic Macquarie Island, where it may be locally dominant.

12. The medium-height, greyish-green shrub, the Dusty Daisy-bush, *Olearia phlogopappa*, has leaves which are darker green on the upper surface but yellowish-white on the lower surface due to a dense covering of fine hairs, which may be star-shaped. *Olearia* derives from the Latinized version – *Olearius* - of the name of a German botanist, A. Öschläger. The relevance of the species name is unclear; part of the word is from the Greek *phlogos*, a flame. There are several varieties of this species, the most common of which is widespread throughout the Victorian high country.

The Ivy-leaved Violet, *Viola hederacea*, a small, tufted herb with kidney-shaped leaves (near base of post) is common in damp habitats throughout southern and north-eastern Victoria. Attractive small white flowers with purple centres may be present from November to April. Both parts of the name are from Latin, - *Viola*, Violet; the species name from *hedera*, an ancient word for Ivy.

13. Grass Triggerplant (*Stylidium* sp.) is abundant throughout subalpine woodlands in Victoria. The bright pink flowers are unusual in that the stamens (male part) and the style (female part) are united to form a single column. (*Stylidium* is from the Greek *stylos*, a column.) The column projects from the flower and is bent back and to one side. When the flowers are mature, the column is, in effect, spring-loaded (i.e., like a trigger). The column is sensitive to touch or disturbance, and reacts by springing forward, similar to a catapult, and depositing pollen on the source of disturbance, usually an insect.

As you cross the boards across the track over a cross-drain, the treeless area downslope is subalpine wet heathland. This small valley is a very good example of an inverted tree-line, i.e., where areas without trees are at a lower altitude than the treed area, rather than the more common perception of tree-line in which trees are usually absent above a certain altitude. This is due to cold air drainage. Air temperature decreases with increasing altitude, and cold air is more dense (heavier) than warmer air. The higher, heavier, colder air thus flows downhill along the valley floor; (you can verify this phenomenon by standing, in bare feet, in front of an open refrigerator). This cold air causes damage, similar to frost, to the shoots of any trees attempting to grow in the valley floor, and which project above the shrub canopy. The absence of trees from the valley floor is also influenced by the generally water-logged soil (peat) and also a possible soil nutrient deficiency.

14. Wax-berry (*Gaultheria appressa*). *Gaultheria* is named after J-F. Gaultier (1708-1756), a French-Canadian scientist; *appressa* refers to the closely pressed hairs on the stem and leaves. Until recently, Wax-berry was considered to be the only member of the Erica (heath) family native to Victoria. *G. appressa* is locally common throughout the Victorian Highlands, but appears to be relatively uncommon at Mt Baw Baw. The waxy, white-pink, berry is actually an 'envelope' formed by the sepals (outer petals) surrounding the fruit, and forms in mid to late summer.
15. Cascade Everlasting (*Ozothamnus secundiflorus*). *Ozothamnus* derives from the Greek *ozo*, smelly, and *thamnos*, a shrub, and probably relates to the pungent odour from leaves of many *Ozothamnus* species. The common name relates to the occurrence of flowers along only one side of the branch, thus giving the appearance of a cascade. Many species in this genus have papery flowers which tend

to be durable, hence the name, everlasting. Cascade Everlasting is common in drier sites within alpine heaths and Snow Gum woodlands throughout the Victorian Highlands.

16. Mainly on the south side of the trail, the trees which differ from the smooth-barked Snow Gum, are Tingaringy Gums, *Eucalyptus glaucescens*. The common name reflects the occurrence of the species on Mt Tingaringy (1448m, i.e., similar altitude to its occurrence here), just south of the Victoria/NSW border east of the Snowy River, from where the species was first recorded in 1887. *Eucalyptus* is from the Greek, *eu* meaning good or well, and *kalyptos* or *calypha*, covered, referring to the lid which covers the unopened flower. *glaucescens* is from the Greek *glaukos*, meaning blue-grey, the colour of juvenile leaves on young plants (Refer #8 above). The trunk of the tree commonly has short horizontal marks in its bark, of unknown cause. Tingaringy Gums are very variable in habit, ranging from small bushy trees, up to 10m tall, in harsh, stony sites, to 50m in mountain forests near Mt Erica.

To the south of the track, there is an interesting malformation of the trunk of a Snow Gum, which has been distorted due to having to grow around a fallen tree, wedged in the rocks above.

17. The extensive mats of round-leaved herbs comprise mainly plants called Pennyworts, *Hydrocotyle* species. Round-leaved is an approximation; the leaves have a large gap in the variably toothed margin and the leaf stalk is attached in the centre of the leaf. The common name, Pennywort, refers to any plant with rounded leaves; ‘penny’ may derive from the shape of the now-discontinued round penny coin. ‘Wort’ is an Old English word for herb or plant. *Hydro*, water, is from the Greek, and *kotyle*, a dish or plate, a reference to the shape of the leaves which may be seen to have a central depression in their surface.
18. Alpine Mint-bush (*Prostanthera cuneata*) is common throughout the Baw Baw Plateau and elsewhere in the Victorian high country. The genus name comes from the Greek *prostheke*, an appendage (as in prosthesis), and *antheros*, a flower, and refers to the small appendages on the anthers in the flower. It is a very aromatic shrub – rub a few leaves between your fingers, then enjoy the strong mint aroma. The large white/mauve flowers have the three lower petals combined to form a lip, and are present from November to February.

The taller shrub with larger leaves, behind the Mint-bush is Alpine Orites, *Orites lancifolia*, which is common along this trail, throughout the resort and elsewhere in the Victorian high country. Orites is from the Greek *oreites*, a mountaineer, which relates to the species’ alpine/subalpine habitat.

19. Pepper plants, *Tasmannia* species, recognizable by the strong pepper taste of chewed or crushed leaves, are common throughout the Victorian high country. One species, Baw Baw Pepper, *T. vickeriana*, is restricted to the Baw Baw Plateau. It is unclear whether or not other *Tasmannia* species also occur at Mt Baw Baw, e.g., Mountain Pepper, *T. lanceolata* and Alpine Pepper, *T. xerophila*. The genus is named after Tasmania, where the first specimens were collected in 1817. The species name of the Baw Baw Pepper derives from J. Vickery, a NSW botanist.
20. Ferns are characteristic of damp habitats in many areas of the Victorian high country, including the Baw Baw Plateau where the Mother Shield-fern, *Polystichum proliferum* is locally very abundant. This local abundance probably results from reproduction by plantlets which form at the end of the fronds and take root when the fronds age and collapse to the ground surface. *Polystichum* is from the Greek *polys*, many, and *stichos*, a row, in reference to the rows of sporangia (spore cases) on the underside of the leaves; *proliferum* refers to the plant’s growth habit. Shield-ferns owe their name to small outgrowths from the fronds which form a shield to protect the groups (sori) of sporangia along the frond. The relevance of Mother is less apparent.

Various orchid species occur along the trail, but their abundance varies considerably both seasonally and between successive years. The Veined Sun Orchid *Thelymitra cyanea* occurs near Marker #11. The Mountain Caladenia, *Caladenia lyallii*, (formerly *C. alpina*), with pinkish-white flowers may be present either singly or in small groups. The Mountain Greenhood, *Pterostylis alpina*, is sometimes abundant along the edges of the trail towards the gate at the western end of the trail.

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