

Summit Trail – Track Notes

These notes should be read in conjunction with the Summit Trail brochure, which contains a comprehensive 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 around the trail and contain information relevant to a plant or other feature in the immediate vicinity of each marker/post.

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; grasshoppers, Bogong Moths, butterflies, etc., etc.....

Please stay on the trails, and try to walk around rather than through any wet areas on the trails, which may be 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.

1. At base of Summit 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.
2. At upper end of boarding in small valley, across to your left from Tower #3. (This advice differs from that given in the Summit Trail brochure, which advises turning left at Tower #4. The different instructions given here are to take you to an initial area of interest and importance. The two routes rejoin before the next numbered marker.)

Close to the end of the boards are small herbs comprising a rosette of bright green leaves, and often forming clumps - the Alpine Marsh-marigold, *Caltha introloba*. The attractive, mainly white flowers appear earlier than most others at Mt Baw Baw, and are unusual in that they often start to open under the snow as it melts late in the season.

Further uphill from the end of the boards is an area, about one square metre, of yellowish/light green moss, *Sphagnum cristatum*. As will be observed further along the trail, *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. 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.

Immediately to the left of the projecting end of the boarding (at your feet) is a group of small, strange-looking plants, each comprising a rosette of narrow leaves which are covered with small ‘tentacles’. These plants (Alpine Sundew, *Drosera arcturi*) are insectivorous, and obtain their nitrogen by digesting small insects which become trapped in the sticky, gland-tipped hairs (the ‘tentacles’) on the leaves.

Do not walk straight ahead from the end of the boarding; move to your left around the tree on the relatively dry area, then continue upslope.

In the small valley to your right as you move on, there are numerous clumps of what appears to be a broad-leaved grass. These plants are the Tall Sedge, *Carex appressa*, common throughout much of Victoria and along drainage lines in subalpine areas.

You will come to a (vehicular) track near two large water tanks; turn right for about 20m, then left on to the Summit/Village Trail as indicated on the signboard.

3. At creek crossing at lower end of Dam Valley

The two large water tanks are part of the village (potable) water supply system, which relies on water draining from the relatively small catchment to the north – Dam Valley. It is thus critical that this valley is not polluted in any way.

Just after crossing the creek, and to your right, there is a small area of *Sphagnum* moss, and a few Alpine Marsh-marigold plants.

The vegetation on the floor of the valley is wet heathland, dominated by 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.

However, recent work (1995) has identified a new species, *Richea victoriana*, endemic to Victoria (hence the name), where it is restricted to wet heathlands and scrub in mountain and subalpine areas on and near the Baw Baw Plateau and the Blue Range near Marysville.

Dam Valley is a classic example of an inverted tree-line, i.e., 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.

4. The shrub adjacent to the marker is Mountain Plum-pine (*Podocarpus lawrencei*). *Podocarpus* comes from the Greek, *podos*, a foot, and *karpos*, fruit, referring to the fleshy stalk of the fruit. The species is named after a Tasmanian botanist, R. Lawrence (1807 – 1833). *P. lawrencei* is the only podocarp species in Victoria, and occurs throughout alpine and subalpine areas, commonly in rocky sites although, at Mt Baw Baw in damp woodland sites as well. *P. lawrencei* is a conifer, (i.e., a ‘pine tree’), the only one occurring in alpine areas on the mainland. It produces male and female cones on separate branches, with the seed developing above a swollen, red, berry-like part of the female cone. In alpine areas at higher altitudes, *P. lawrencei* growing on rocky sites provides critical habitat for the Mountain Pygmy Possum.

On the floor of the valley, within the wet heathland, there are extensive, light green patches of *Sphagnum* moss, and numerous small ponds amongst low-growing vegetation. This area comprises the Alpine Bog Community and the Fen (Bog Pool) Community, both of which are listed under the Flora and Fauna Guarantee Act. This listing acknowledges the unique features of these communities, their restricted distribution, conservation values, and susceptibility to damage, as well as their hydrological importance. These communities are thus afforded special protection.

The wet heathland, including its component communities outlined above, and particularly the heads of small valleys within the wet heathland, are habitat for the endangered Baw Baw Frog, *Philaria frosti*.

5. The abundant rosette plant (at your feet) with grey-green, hair-covered leaves is the Silver Daisy or Snow Daisy, *Celmisia* species; (there are two possible species at Mt Baw Baw, hence the absence of a definite species name here). These species are widespread throughout alpine and subalpine areas in Victoria, sometimes being the dominant plant over extensive areas, which may thus be designated as herbfields. The large white flowers may be present between December and March.

6. Five Ways. The abundant tree is Snow Gum (*Eucalyptus pauciflora* subspecies *acerina*). *Eucalyptus* is from the Greek; *eu*, meaning well, and *kalyptos* refers to the cap on the unopened flower bud, i.e., well covered; *pauciflora*, of Latin derivation, means a paucity of flowers. The name of the subspecies, *acerina*, means hard or sharp. The subspecies *acerina* is restricted to, and is the only subspecies occurring on the Baw Baw Plateau and nearby Mt Useful. Snow Gum is the dominant tree throughout the subalpine woodland on the Baw Baw Plateau. Its size generally decreases with increasing altitude. The characteristic multi-stemmed or mallee growth form, frequently with twisted branches, is both inherent and a response to environmental conditions – strong winds and snow loading - and to fire. Where a tree suffers damage, new shoots develop from the base of the trunk. The dead trunks and branches are remnants from the 1939 bushfires, which devastated the Baw Baw Plateau. The living trees are thus about 65 years old and clearly grow quite slowly.

The bark colouration, which varies throughout the year, is a particularly attractive feature of these trees.

7. Track surface. A variety of types of track surface will be encountered throughout the resort, ranging from natural vegetation to imported gravel. There is an essential requirement to provide a stable surface, resistant to pedestrian and other traffic, and erosion. Near Five Ways, wood chips, produced on site from trees cleared in trail construction, have been used. On the track in this area, open-mesh mats of hessian-like material have been spread to help stabilise the soil surface and thereby assist plant establishment. In due course, the mats will decompose. Elsewhere throughout the resort, straw is spread to assist the rehabilitation of the more severely disturbed areas.
8. 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, a semi-dwarf shrub 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.

As you continue, you may notice, on the trail, an abundant cover of the moss, *Polytrichum*, particularly in the slightly wetter areas. Another feature of interest on the Baw Baw Plateau is the common occurrence of large, round-shaped rocks or tors (some small examples are visible in the woodland to your right). The tors have been rounded by erosion over a long period since erosion of the ground surface exposed the rocks, in turn, to the erosive forces of wind and water, and freeze/thaw cycles.
9. Grass Triggerplant (*Stylium* 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. (*Stylium* 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 move along, you will arrive at the base of a large communications tower, and a remotely monitored weather station within the fenced enclosure. It is well worth walking to your right, to the open grassed area from which there are spectacular views to the south; you may see Wilsons Promontory and, if the sun is at the right angle, Westernport.
10. Mueller's Lookout, a vantage point providing superb views. In the distance to the north (on a clear day) Mts Buller and Stirling are visible. Nearer, the view of the Baw Baw Plateau extends from Mt St Gwinear in the east, past Mt St Phillack to Mt Whitelaw in the west. At the base of the northern slopes of Mt Baw Baw is Baragwanath Flat, an extensive area of wet heathland, which is in the adjacent Mt Baw Baw National Park.
11. Dry heathland, a relatively uncommon plant community within the resort, occurs on the drier north-facing slopes of Mt Baw Baw near the lookout. This community is dominated by the 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.
12. Alpine Star-bush (*Asterolasia trymalioides*), a small shrub, occurs widely throughout Victoria's high country, but seems to be of fairly restricted occurrence in the resort. *Asterolasia* derives from Greek, *aster*, meaning star and *lasios*, hairy, and refers to the dense covering of star-shaped hairs on the underside of the leaves. Abundant bright yellow flowers may persist from November until February.

13. 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. Therefore, why is this isolated tree growing here on the dry north side of Mt Baw Baw? (Hint - occurrences in drier areas will be influenced by local drainage patterns.)
14. Plant succession on rocks near summit (to right of trail). Plant succession refers to a very slow process in which lower (simpler) plants colonize unvegetated areas and through their growth and other processes, change the immediate environment such that it becomes suitable for higher forms of plant; these then displace the initial colonizers. The rock faces show a sequence of change from bare rock, to areas colonized by lichens, areas supporting mosses, then to small grasses and herbs, and finally to shrubs and trees. The sequence may approximate concentric zones of each type of vegetation.
15. Mountain Clubmoss (*Lycopodium fastigiatum*). *Lycopodium* is from the Greek *lykos*, a wolf, and *pod*, foot, relating to the resemblance of leaves to claws; *fastigiatum* means high, exalted. Clubmosses are unusual plants, being somewhere between mosses and ferns in their general features and reproduction. These small plants are moss-like in appearance, and reproduce via spores which are borne in club-shaped cones, hence their common name. *L. fastigiatum* is relatively common throughout Victoria's alpine and subalpine areas, including Mt Baw Baw.
16. Viewpoint. From the rocks, to the left of the trail, there is a good view of the Latrobe Valley; the various power stations are prominent. Adjacent to the rocks is another example of the Mountain Plum-pine. At ground level below the rock is an interesting small plant, the Alpine Water-fern, *Blechnum penna-marina*, which occurs in some wet areas in the resort. The plant has a wide distribution, mainly in alpine areas and in New Zealand and South America. It is understood to be the only plant native to subantarctic Macquarie Island, which also occurs in the Victorian high country.
17. Downey's picnic area. The vegetation is typical of the Baw Baw resort area, and will include many of the plants mentioned elsewhere in these notes. Grasses will be predominantly native species, rather than the introduced species such as those in the ski areas. Branches of the dead trees commonly support a lush, green-grey growth of the lichen, *Usnea* species, sometimes called Old Man's Beard. Adjacent to the gravel path, there are several shrubs of the Alpine Bottlebrush, *Callistemon pityoides*, which produces showy yellow flowers from November to February.
18. Alpine Mint-bush (*Prostanthera cuneata*) is common throughout the Baw Baw Plateau and elsewhere in the Victorian high country. 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.
19. 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. (This plant is possibly a rare occurrence within the resort area.) 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.
20. The small grass-covered area (through the wooden gateway) is the result of clearing of heathland vegetation to provide a practice area for cross-country skiing. It is encouraging that much of the vegetation in this area comprises native species.

