Mount Cavendish – a volcanic plug from an eruption of rhyolite lava

Rod Bird

On 16 November 2021 I attended a meeting at Mt Cavendish on 'Eulong' with Jodie Young, Lisa McIntyre and several members of Panyabyr Landcare Group, Bill & Katrina Weatherly & Diane Luhrs. The purpose of the visit was to acquaint the Landcare members with details of a project to fence off the mount (and adjacent Little Mt Cavendish) from livestock with a view to restoring remnant vegetation. Bill was also collecting cuttings and demonstrating how to deal with them.

The mount is a plug of acid lava that is derived from eruption of Rocklands Rhyolite some 405 mya. The rock is similar to the exposure at Nigretta Falls, Four Posts Quarry and rocks near Victoria Point. The rock is rather similar to granite but it differs in that it was extruded above the land surface and cooled quickly, producing small grains, whereas granite is formed when the molten lava cools slowly beneath the land surface, producing larger grains. The acidic lava contains a high percentage of silica (quartz and feldspar) and is very viscous and often 'glassy' in appearance.

Mount Cavendish has been grazed by sheep and cattle since settlement in 1840. Despite the steepness and ruggedness of the slopes of the mount there is very little rock area that the animals cannot reach. But still some plants survive in crevices and rock faces out of reach of the grazers. A basic list of plants that we saw is presented below – we did not undertake a detailed plant survey. The rocky area is, of course, also infested in places with pasture plants and weeds such as Phalaris and Fog Grass.

Plants of most interest there were Austral Pelargonium (*Pelargonium australe*), *Dianella longifolia* (Pale Flax-lily) and Wedge-leaved Hop-bush (*Dodonaea viscosa* ssp. *cuneata*). These species are attractive and unusual outliers there, surviving against the odds.

The summit of the mount is fairly flat and contains several shallow rock pools with a few water plants. These pools would be used by the birds and other fauna in the area.

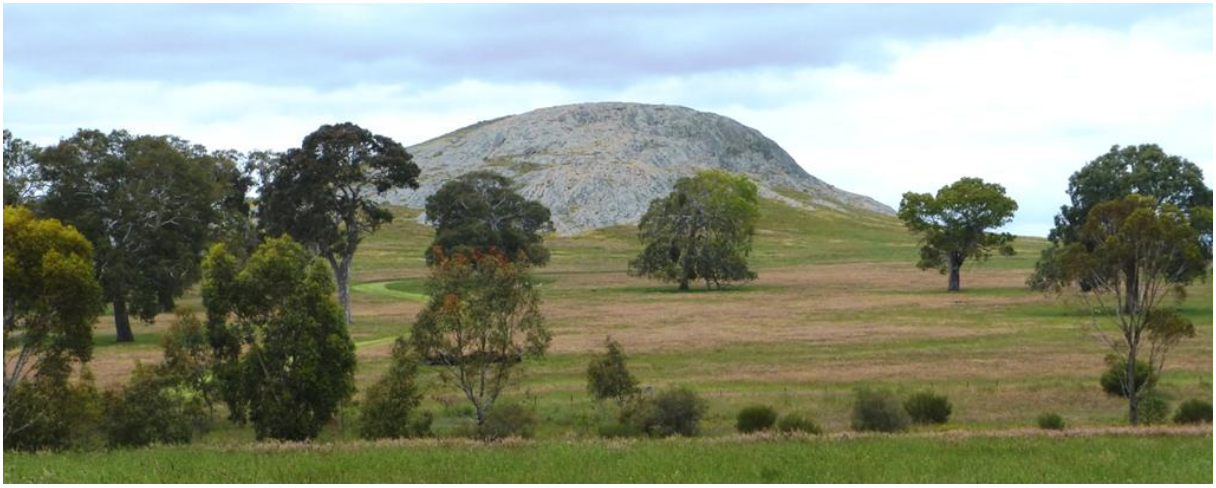
The outwash slopes are sandy and dominated in most parts by pasture grasses and weeds. However, there are patches of Wallaby Grasses (in particular) in those slopes. Before settlement and the arrival of livestock there would almost certainly have been a development of shrubbery around the base of the rock, as is the case with the granite inselbergs of South Western Australia. Almost all rain falling on the rock will run off, providing more water for plants at the base. There is no sign now of that 'lost' vegetation at Mt Cavendish but it could have included *Banksia marginata* (Silver Banksia), *Leptospermum continentale* (Prickly Tea-tree), *Acacia verticillata* (Prickly Moses), *Acacia melanoxylon* (Blackwood), *Allocasuarina verticillata* (Drooping Sheoak), *Allocasuarina paludosa* (Scrub Sheoak), *Bursaria spinosa* (Sweet Bursaria), *Goodenia ovata* (Hop Goodenia), *Melyctus dentata* (Tree Violet), *Melaleuca squarrosa* (Scented Paperbark), *Melaleuca decussata* (Totem Poles) and *Viminaria juncea* (Golden Spray) – to mention but a few candidates.

It will be of interest to follow the fortunes of flora on this mount after it is fenced from livestock.

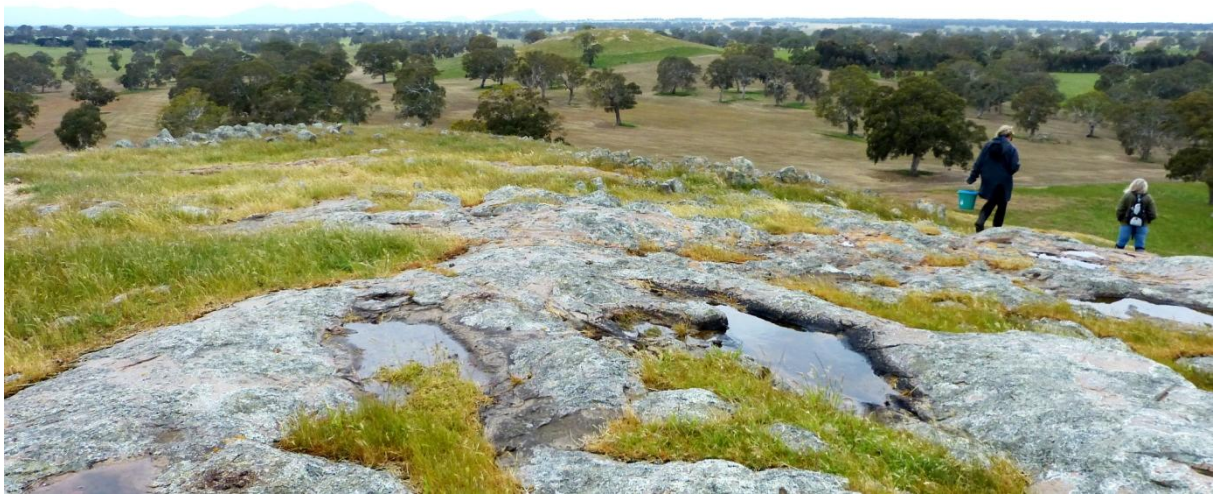
Flora list

Asplenium flabellifolium (Necklace Fern) – under a rock ledge
Bulbine bulbosa (Bulbine Lily) – one wet area
Burchardia umbellata (Milk-maid) – one wet area
Cheilanthes austrotenuifolia (Rock Fern) – common
Crassula sieberiana (Sieber Crassula) – several areas
Dianella longifolia (Pale Flax-lily) – 2 or 3 clumps in the rocks
Dodonaea viscosa ssp. cuneata (Wedge-leaved Hop-bush) – 2 or 3 small bushes in the rocks
Hypericum gramineum (Small St John's Wort) – a few plants
Microlaena stipoides (Weeping Grass) – common
Pelargonium australe (Austral Pelargonium) – common
Poa sieberiana (Grey Tussock Grass) ? – presumed species, seen in 1 or 2 areas
Rhytidosperma spp. (Wallaby Grass) – at least 4 species, mostly on the fringe

The tree vegetation surrounding the mount is now entirely of sparsely-spaced River Red Gum (*Eucalyptus camaldulensis*). It is likely that there would have been some Silver Banksia, Drooping Sheoak, Blackwood and Black Wattle (*Acacia mearnsii*) in patches in that landscape. Manna Gum (*E. viminalis*) may have occupied some part of the higher ground.



View of Mt Cavendish from the west



Top of Mt Cavendish and view east to Little Mt Cavendish

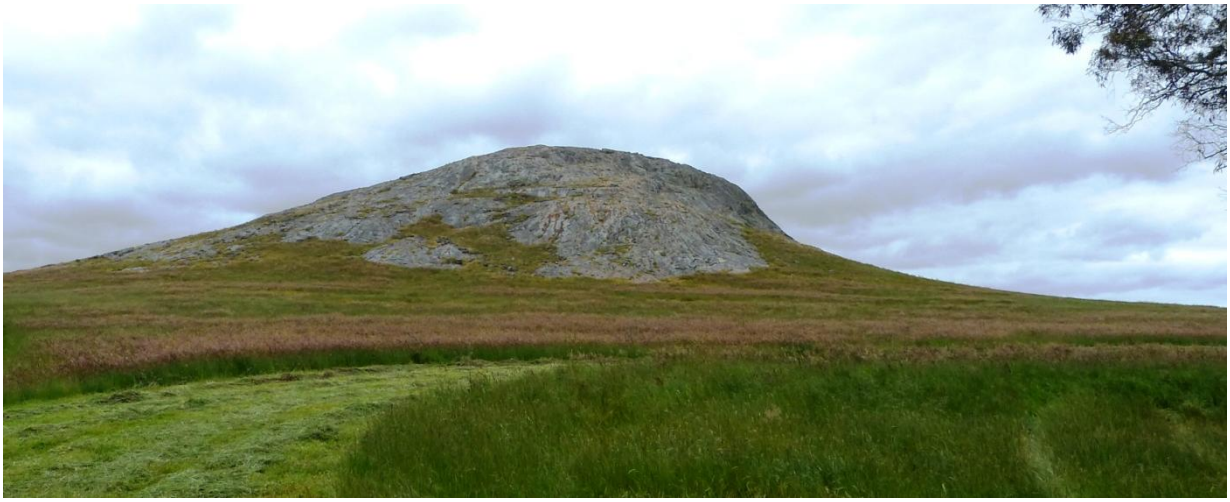
Mt Cavendish rhyolite, Austral Pelargonium & Wedge-leaved Hopbush

Austral Pelargonium

Wedge-leaved Hop-bush

Wedge-leaved Hop-bush

Pale Flax-lily



View of Mt Cavendish from the north