

The Scrubby Creek Cave Property, Murrindal, Vic Bushfire New Year Eve 2019

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The Scrubby Creek Cave Property was acquired in 2012 by Rimstone Co-operative Ltd to protect the Scrubby Creek Cave (M-49), to provide access to the cave and its associated karst including the tufa terraces from the cave spring. Rimstone Co-operative was formed by cavers and ex-cavers in 1974 to support speleology in the Buchan area (see <https://www.rimstone.org.au>).

The Buchan-Murrindal area was settled from the 1830s when a drought on the Monaro Tablelands sent people overland for new grazing areas. The limestone rocks present had a grassy woodland with yellow box as the dominant species. The Buchan and Murrindal River valleys had rich alluvial areas. The area was bounded by the Snowy River Volcanics which are not as productive as the limestone for grazing domestic stock.

The Scrubby Creek Cave property is Allotment 18C, Parish of Buchan and is located on the west side of Slippery Pinch Road (Figure 1). This road was the original access to Gelantipy and Wulgulmerang further north of Buchan and Murrindal. It is called Slippery Pinch Road as it crosses a fault which has seepage which drains to the dams in the Slippery Pinch paddock. There is a small water reserve marked on the title as a stock watering point.

The spring and tufa terraces were known very early, as shown in Figure 1 (dated 1906). Scrubby Creek forms the boundary between the limestone and the Snowy River Volcanics.

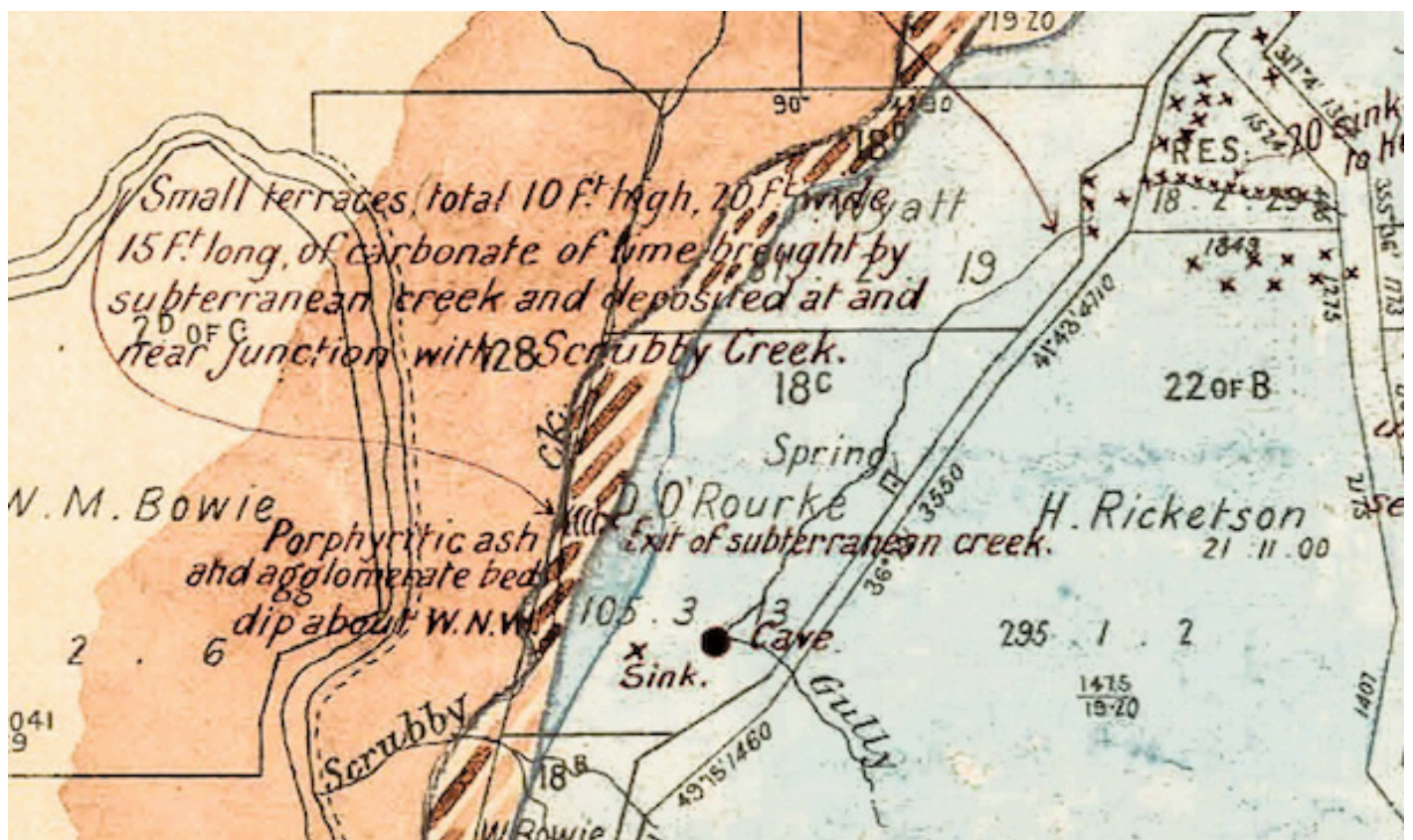


Figure 1: Scrubby Creek property, 18C from 1906 map showing spring and tufa terraces.

The cave explorer, Frank Moon tried to access a cave from the spring in the 1930s, but it was not until 1960-61 after new diving attempts failed, that a passage at the base of a cliff 25 metres from the spring was excavated of gravel and rocks. After several trips access was gained to the cave. The cave was explored to a final rockfall which has not been passed. The cave has a sump some 150 m into the cave which when open allows access to more than 1 km of stream passage with a high roof and several chambers (Mill, 1979). During the 1970s the water input from Storm Water Drain, M-43 (Figure 2) was shown to connect to the cave. Some high galleries above the stream were also found but little else.

For 50 years, cavers maintained close contact with the owner, John (Grubb) Woodgate. Rimstone Co-operative Ltd purchased the property from his daughter in 2012. Rimstone's objectives include the conservation and protection of caves and karst. The Co-operative initially purchased the Homeleigh Guesthouse in Buchan in 1974 to provide cavers with accommodation. It has also awarded scholarships to people studying caves and karst in the area. The purchase of a cave property realigned the Co-operatives activities. Primarily the purchase was on the basis that the property had a very fine stream cave of 1.5 km in length and the property was not going to be acquired by the Victorian Government to add to the existing cave reserve system. Fundraising for the purchase was assisted by support from the ASF Karst Conservation Fund and ACKMA. Managing the property has been based on protecting the cave and karst values whilst leasing the land for grazing by the neighbouring farmer.

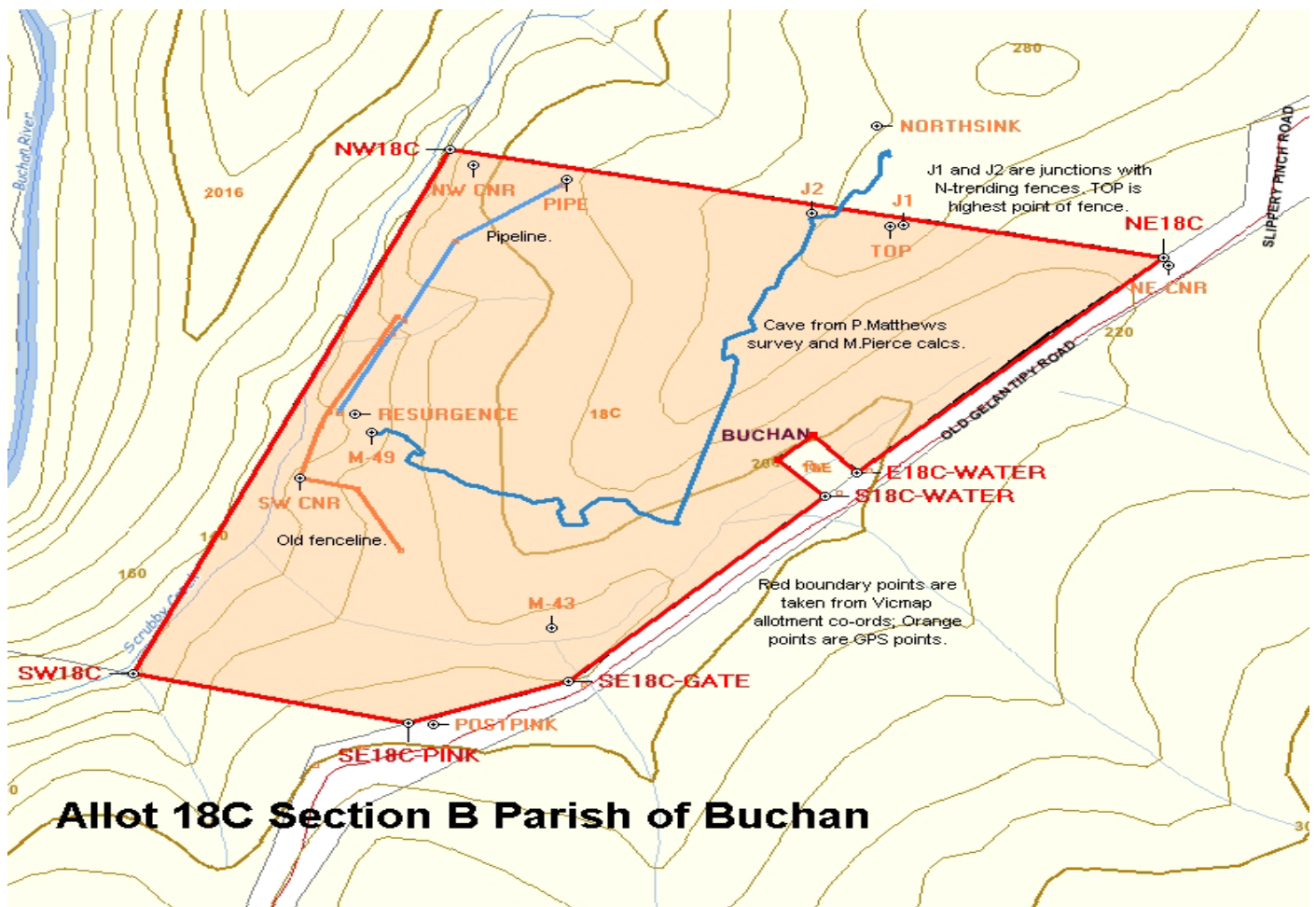


Figure 2: The Scrubby Creek Property showing spring and outline of Scrubby Creek Cave (M-49) and Stormwater Drain Cave, (M-43) which drains to Scrubby Creek Cave (Drawn R Frank).

The tufa terraces have been fenced to protect them from stock damage (Figure 3). There has also been a very productive collaboration with the Botany and Plant Ecology Research Group, Latrobe University to investigate the biota of the tufa terraces and the surrounding flora of the property. The studies revealed the tufa terraces under shade were very rich in biodiversity including many bryophytes (mosses, liverworts etc) compared to the sunny tufa pools. The shade trees were Muttonwood (*Myrsine howittiana*) and Tree Violet (*Meliclytus dentatus*) (Figure 4).

The grassy slopes above Scrubby Creek were rich in kangaroo grass (*Themeda triandra*) as well as Wild Sorghum (*Sorghum leiocladum*). Herbs such as *Wahlenbergia gracilentia* were also present. Despite over 100 years of grazing on the property these species demonstrate limited grazing compared to other properties. A reintroduction of the Austral Coneflower (*Rhaponticum australe*) is being trialled. It was first reported by von Mueller from rocky slopes at Murrindal in 1854 but has not been reported since in Victoria. The seed stock was from Queensland (Figure 5).



Figure 3: Tufa terraces in 2013 with dead Silver Wattle, Muttonwood and Tree Violet behind the wattle and grassy slopes to the right. As well blackberry bushes, now currently controlled. Photo R. Frank

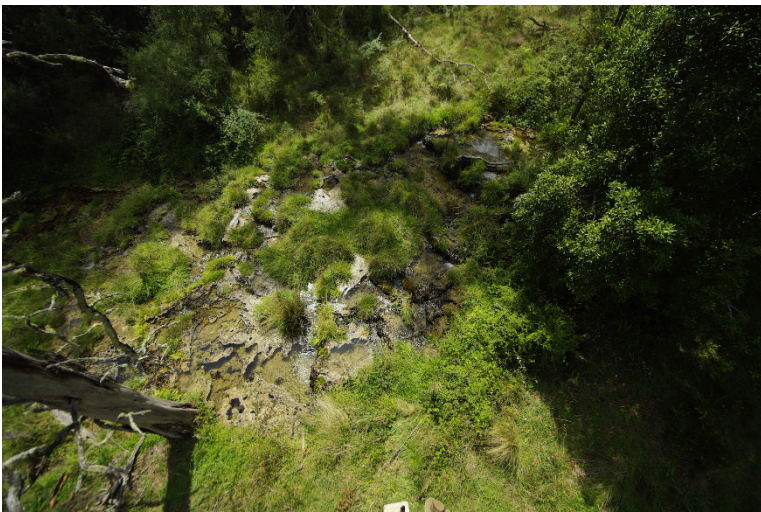


Figure 4: Overhead view of tufa terrace showing walls between ponds; Muttonwood on right. Photo R. Frank



Figure 5:
Grassy slopes above tufa terraces.

Left is flowering Wild Sorghum.

Right is flowering of Austral Coneflower, Photos N. White



The property was devastated by bushfire on December 31, 2019, and all fences were burnt. These have since been replaced using all metal posts, droppers and wire. The boundary fencing was covered by insurance which enabled the property to be refenced quickly. The property creek boundary was only partially fenced but stock did not leave the property due to the thickness of the scrub and forest on the Snowy River Volcanics to the west. It was apparent that the total property creek boundary needed fencing as a result of the fire (Figures 6 and 7).



Figure 6: Photograph of the tufa terraces immediately after the bushfire in January 2020. The trees on right are Muttonwood and Tree Violet. One branch of the Muttonwood has regenerated since. Numerous Tree Violet seedlings had emerged by December 2021. The grassy slopes in upper right of photo have since recovered. Photo R. Furness.

Figure 7: Perspective overlooking the tufa terraces with burnt forest behind Scrubby Creek and Mt Dawson on skyline, February 2020. Photo N. White



The Victorian Government, through the East Gippsland Catchment Management Authority initiated a Biodiversity Bushfire Recovery Grant scheme and Rimstone was successful in receiving a grant to protect the tufa and the grassy slopes. In the event, due to Covid-19 travel restrictions all funds were spent on this western creek boundary fencing. The property boundary follows Scrubby Creek and below the tufa terraces is in a very steep narrow gorge with grassy slopes.

The creek had a rich riparian flora with East Gippsland remnant rainforest species. The creek boundary and grassy slopes were fenced at the break of slope to allow for natural regeneration of the grassy slopes and creek flora. The area of 3.3 ha is now conservation fenced (Fig 8). Scrubby Creek above the spring and tufa terraces is dry except following high rainfall events as runoff sinks into the limestone and is captured by the stream in Scrubby Creek Cave.

The Co-operative's management objectives for the property are to protect the cave and karst values, provide access to the caves, keep the property in productive use through a grazing lease and protect the botanical values. Protecting the tufa was the first objective. These terraces were protected by fencing and water for stock was provided with a water trough outside the fenced area but filled from the spring.

The grant provided for protection and enhancement of the tufa terraces and grassy slopes. In the event these remain important objectives which are being worked on. However, an approved variation of the grant expenditure allowed the use of all grant expenditure for the conservation fencing of the Scrubby Creek boundary and fencing below the tufa terraces allowed for conservation fencing of 3.3 ha of the grassy slopes as well as the Scrubby Creek gorge itself with its riparian and rainforest flora (Figure 8). The creek vegetation will be allowed to regenerate naturally. The grassy slopes have already recovered and in the rocky places the rare and short lived Eastern Bitter Bush (*Adriana tomentosa*) has emerged as a dominant one-metre-high cover.

Scrubby Creek had both riparian and remnant rainforest species which were killed in the bushfire. Some of the species present were Muttonwood, Tree Violet, Water gum (*Tristaniopsis laurina*), Milk vine (*Marsdenia rostrate*), Wombat berry (*Eustrephus latifolus*), Wonga vine (*Pandorea pandorana*) and several wattles and eucalypts.

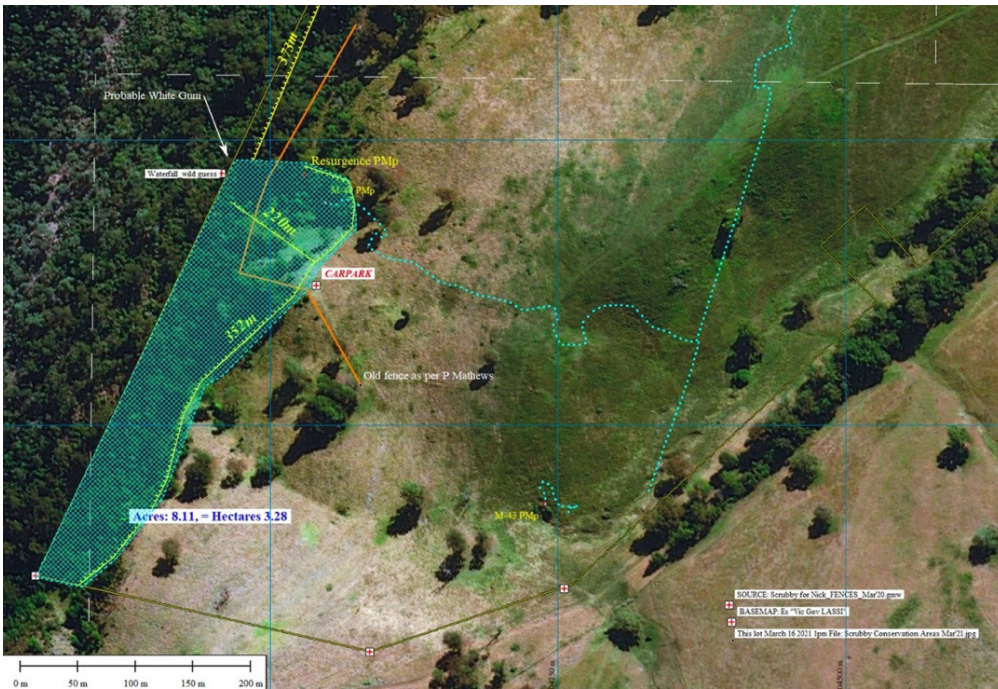


Figure 8: Southern portion of Rimstone property, 180 Slippery Pinch Rd, Buchan illustrating conservation fencing of Scrubby Creek and the grassy slopes plus the tufa terrace area.

Conclusion

At the time of purchase of the property it was the Co-operative's objective to protect the caves, karst and associated features including the tufa terraces which are the most extensive on private property in East Gippsland. There was an old, damaged fence on the northern portion of the Scrubby Creek property boundary that was destroyed in the bushfire. The Biodiversity Bushfire Recovery Grant was used to fence the Scrubby Creek boundary and provide conservation fencing to allow natural regeneration of the riparian and remnant rainforest community along the creek and to allow the steep grassy bank to recover naturally.

The Co-operative Ltd will now continue with establishing shade cover of the tufa terraces and work with Latrobe University to study the regeneration and succession of the riparian and rainforest plants along the creek.

Rimstone Co-operative Ltd along with many other landowners in East Gippsland suffered losses due to the bushfire. These were fortunately restricted to fencing for us and have been replaced with more resilient fences and the property is now recovering. Travel restrictions due to Covid have precluded more on-ground restoration work since the fires. As other cave and karst managers can attest, extreme weather events such as bushfires and floods present serious management challenges.

Reference

Mill, Lloyd (1979) ASF Newsletter 85, 2-5.

