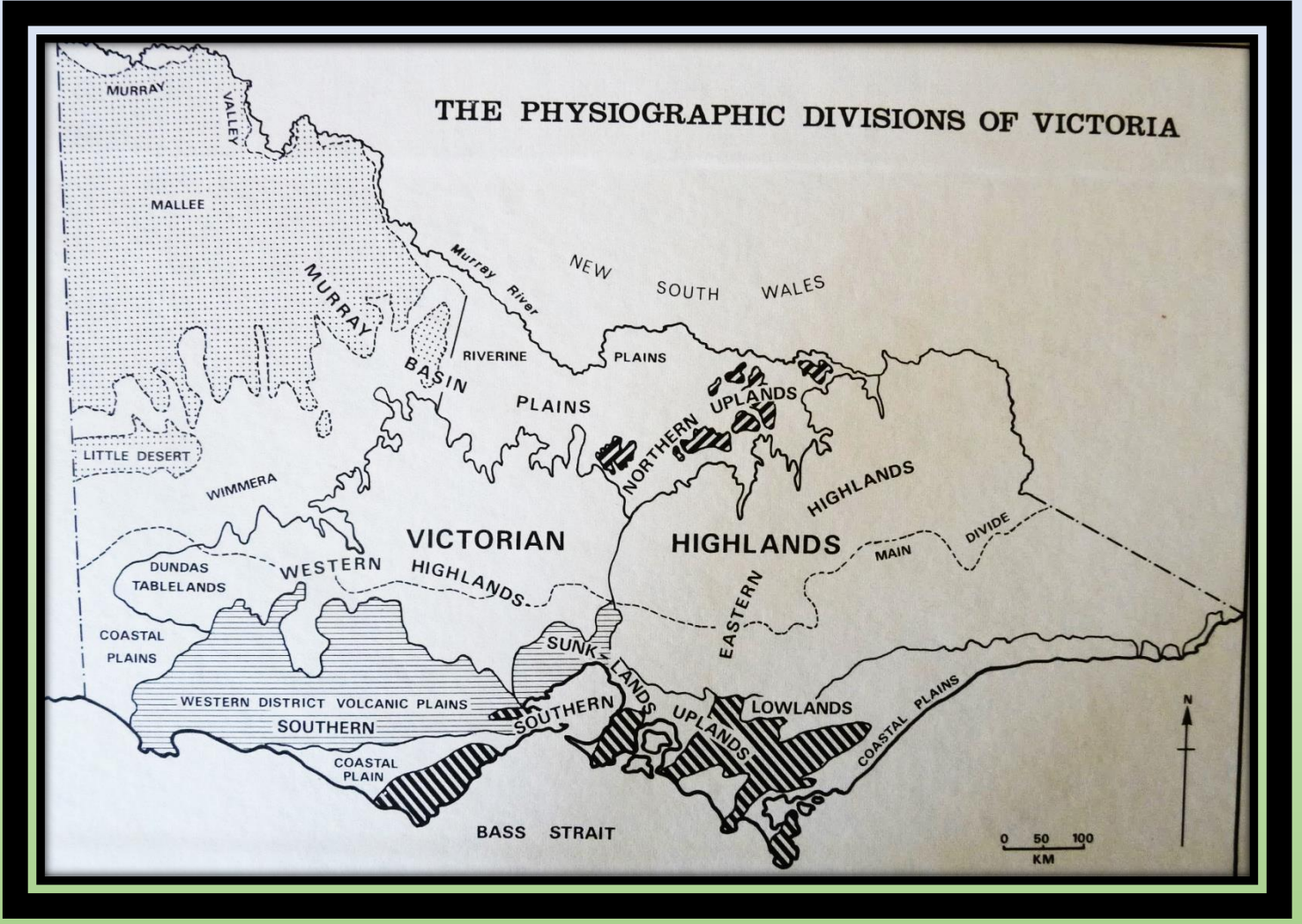
Harmans Valley

A Significant Landscape Overlay is needed to protect the natural and archaeological history of the valley

Dr Diane Luhrs
Sociologist/Social Geographer
March 2018



E. Sherbon Hills (1975) *Physiography of Victoria: An Introduction to Geomorphology*, Australia: Whitcombe and Tombs, inside front cover and p. 205.

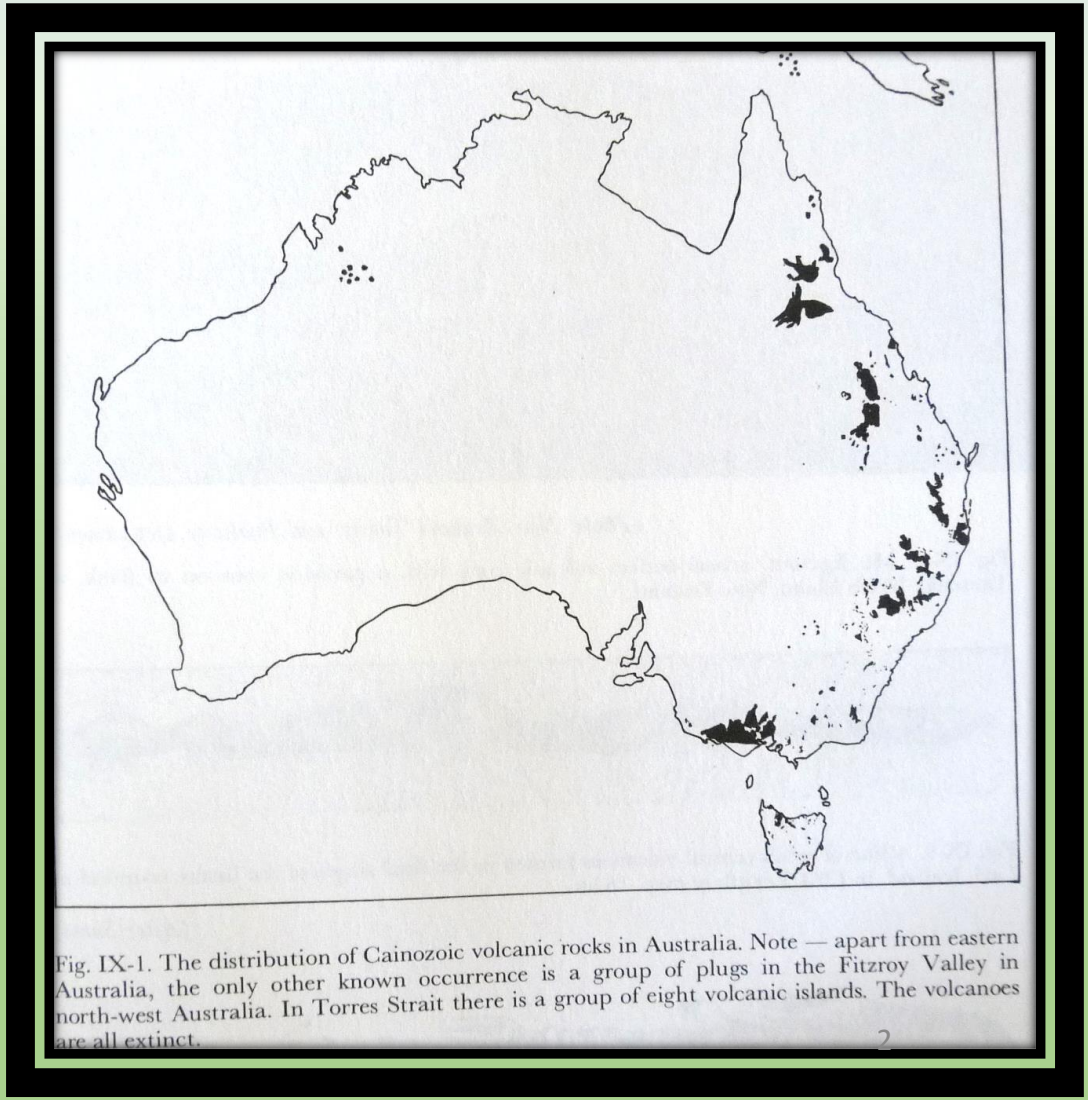


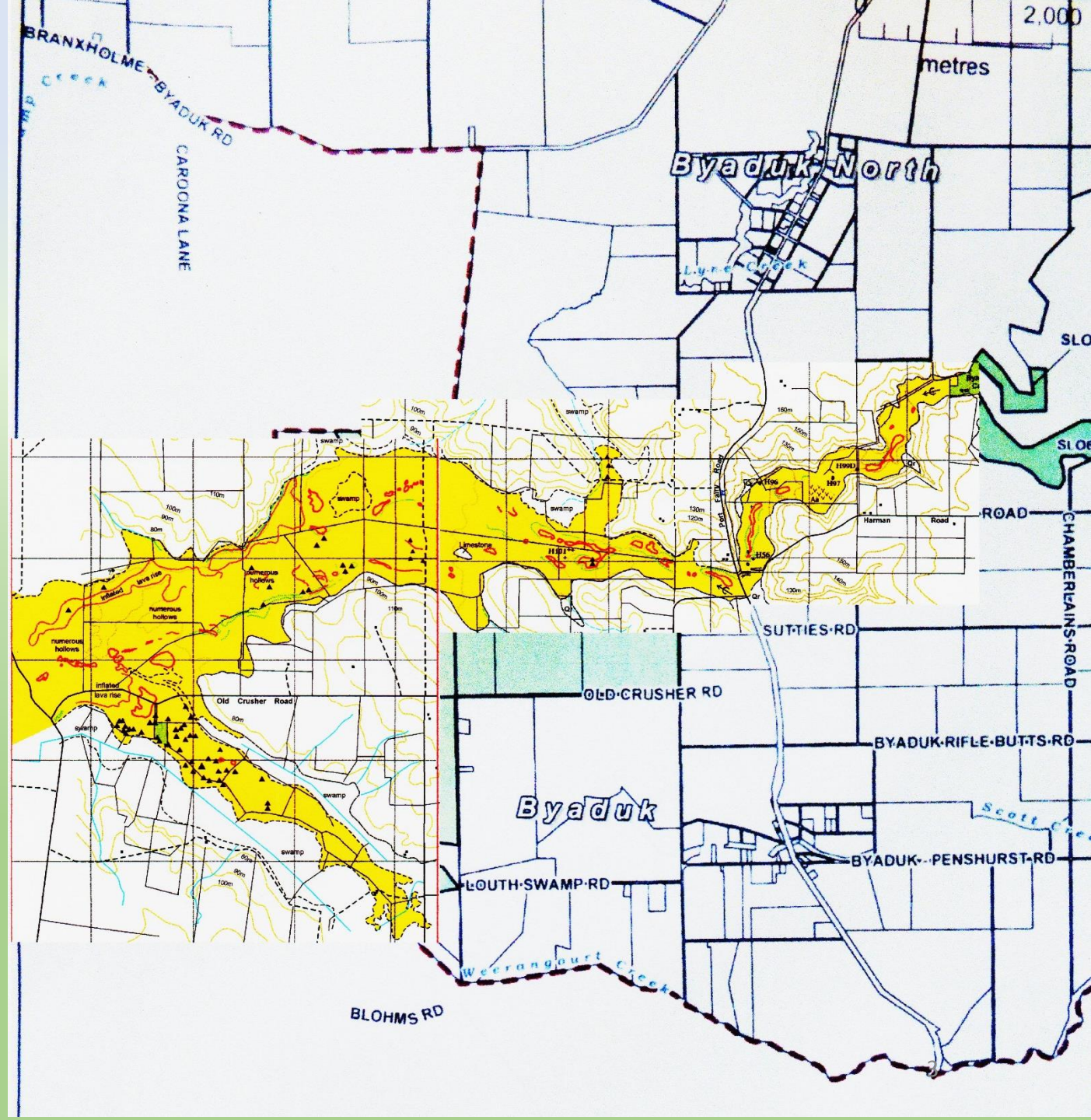
Fig. IX-1. The distribution of Cainozoic volcanic rocks in Australia. Note — apart from eastern Australia, the only other known occurrence is a group of plugs in the Fitzroy Valley in north-west Australia. In Torres Strait there is a group of eight volcanic islands. The volcanoes are all extinct.

Harmans Valley
Lava flow - maps combined

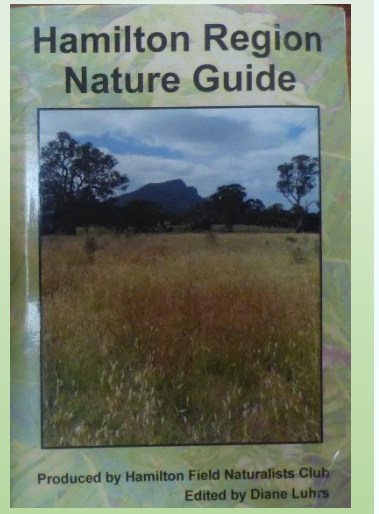
1. Ken Grimes's maps of the lava flow superimposed on the proposed SGSC SLO Amendent C36.

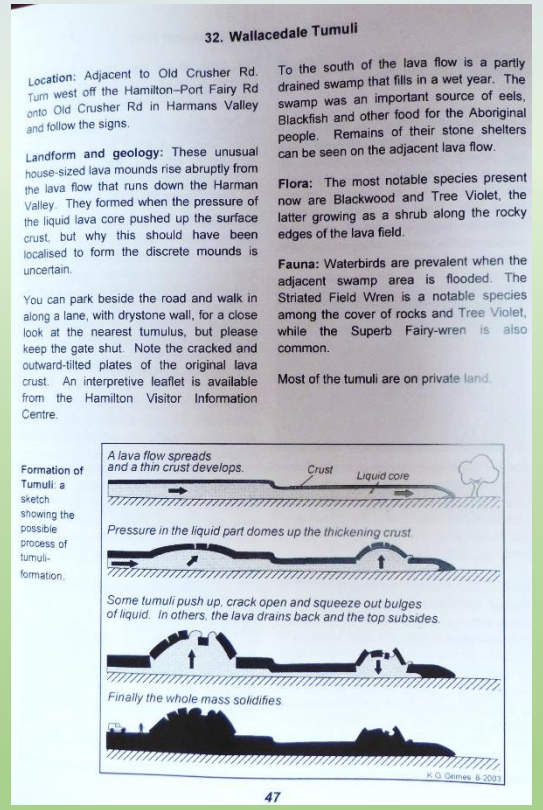
2. Difficult to compare the actual areas delineated because the two maps are produced using different references.

3. The lava flow is a specific sub-section of the much broader proposed Amendment C36 overlay (now amended to specifically cover the lava flow and not the areas outside the lava flow)



HFNC interest and concern





32. Wallacedale Tumuli

Location: Adjacent to Old Crusher Rd. Turn west off the Hamilton–Port Fairy Rd onto Old Crusher Rd in Harmans Valley and follow the signs.

Landform and geology: These unusual house-sized lava mounds rise abruptly from the lava flow that runs down the Harman Valley. They formed when the pressure of the liquid lava core pushed up the surface crust, but why this should have been localised to form the discrete mounds is uncertain.

You can park beside the road and walk in along a lane, with drystone wall, for a close look at the nearest tumulus, but please keep the gate shut. Note the cracked and outward-tilted plates of the original lava crust. An interpretive leaflet is available from the Hamilton Visitor Information Centre.

To the south of the lava flow is a partly drained swamp that fills in a wet year. The swamp was an important source of eels, Blackfish and other food for the Aboriginal people. Remains of their stone shelters can be seen on the adjacent lava flow.

Flora: The most notable species present now are Blackwood and Tree Violet, the latter growing as a shrub along the rocky edges of the lava field.

Fauna: Waterbirds are prevalent when the adjacent swamp area is flooded. The Striated Field Wren is a notable species among the cover of rocks and Tree Violet, while the Superb Fairy-wren is also common.

Most of the tumuli are on private land.

Formation of Tumuli: a sketch showing the possible process of tumuli-formation.

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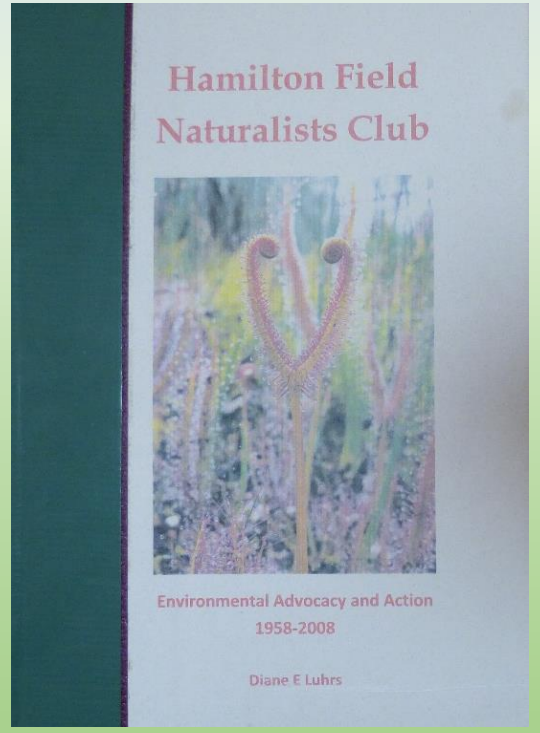

HFNC members have been active in exploring and documenting the features of the volcanic structures (eruption points, lava flows, caves and related flora and fauna) of the district. HFNC member activities at Mt Napier are documented in Bird, 1997; Costermans, 1972; Gill and Elmore, 1973 & 1974; and Willis, 1963. Other documents include: aerial photography and reconnaissance by Lionel Elmore, circa 1970s; publications by Gill and Elmore, 1973 & 1974; Grimes, 1995. Associated flora and fauna were researched and published by Beauglehole & Learmonth, 1957; and sub-fossil bones were collected from the caves and described by Wakefield, 1963, 1964 and 1971.

HFNC members (particularly Lionel Elmore in the pre-National Parks era) have been active in the promotion and management of the volcanic features, and in various lobbying activities concerning problems such as quarrying, burning, and weed-eradication. More recently I have been involved with the Volcanic Discovery Trail Group, aiming to promote the tourist potential of these sites.

On May 24, 1994, the "Friends of Eccles and Napier" was formed at a public meeting in Macarthur to promote and care for the two volcanoes and their lava flows. This group had a significant overlap of membership with HFNC, and shared the HFNC post-office box.

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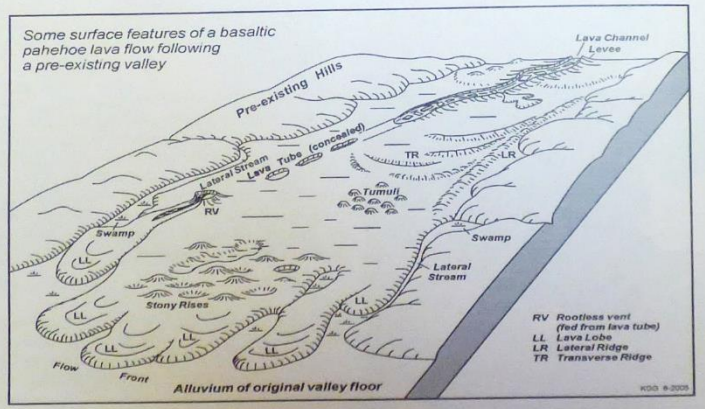
Volcanic plains of Western Victoria
Ken Grimes & David Munro, *Hamilton Spectator*: 2-7-2005

The volcanic plains of western Victoria form a belt 100 km wide which extends 350 km west from Melbourne nearly to the South Australian border. In addition several volcanoes occur near Mt. Gambier. The gently undulating plains are formed of lava flows up to 60 m thick, and are studded with volcanic hills. About 400 volcanoes are known within the region, which has been erupting intermittently for the last five million years. The youngest volcano appears to be Mt. Schank, in South Australia, which erupted about 5,000 years ago. The Aborigines would have watched this and some of the other eruptions, and they have stories of burning mountains. Further eruptions could happen, but are not likely in our lifetimes.

The Volcanoes

Volcanoes erupt when molten material (called *magma*, and at about 1200° C) is forced up from great depths. On reaching the surface this may flow across the ground as lava, or be blasted into the air by gas pressure to build up cones of fragmentary material. Most of the local volcanoes erupted for only a few weeks or months, and never again – the next eruption was at a new site.

In the Western District there are mainly three types of volcano, though combinations of these also occur. About half of the volcanoes are small steep-sided *scoria cones* built from frothy lava fragments thrown up by lava fountains. Most of the remainder are broader but flatter *lava volcanoes* formed from relatively gentle flows of lava welling out of a central crater. A group of about 40 *maar craters* near the coast formed from shallow steam-driven explosions which produced broad craters with low rims. These now often contain lakes.



Volcanic lava-flow features (Ken Grimes)

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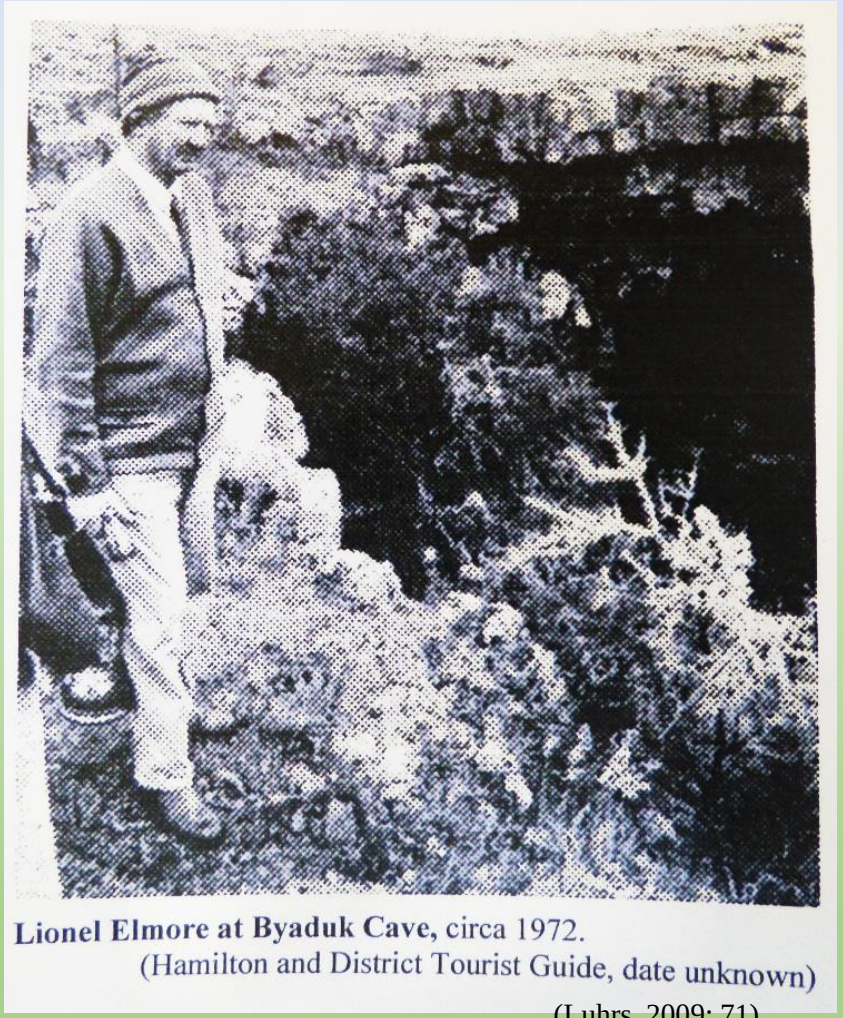
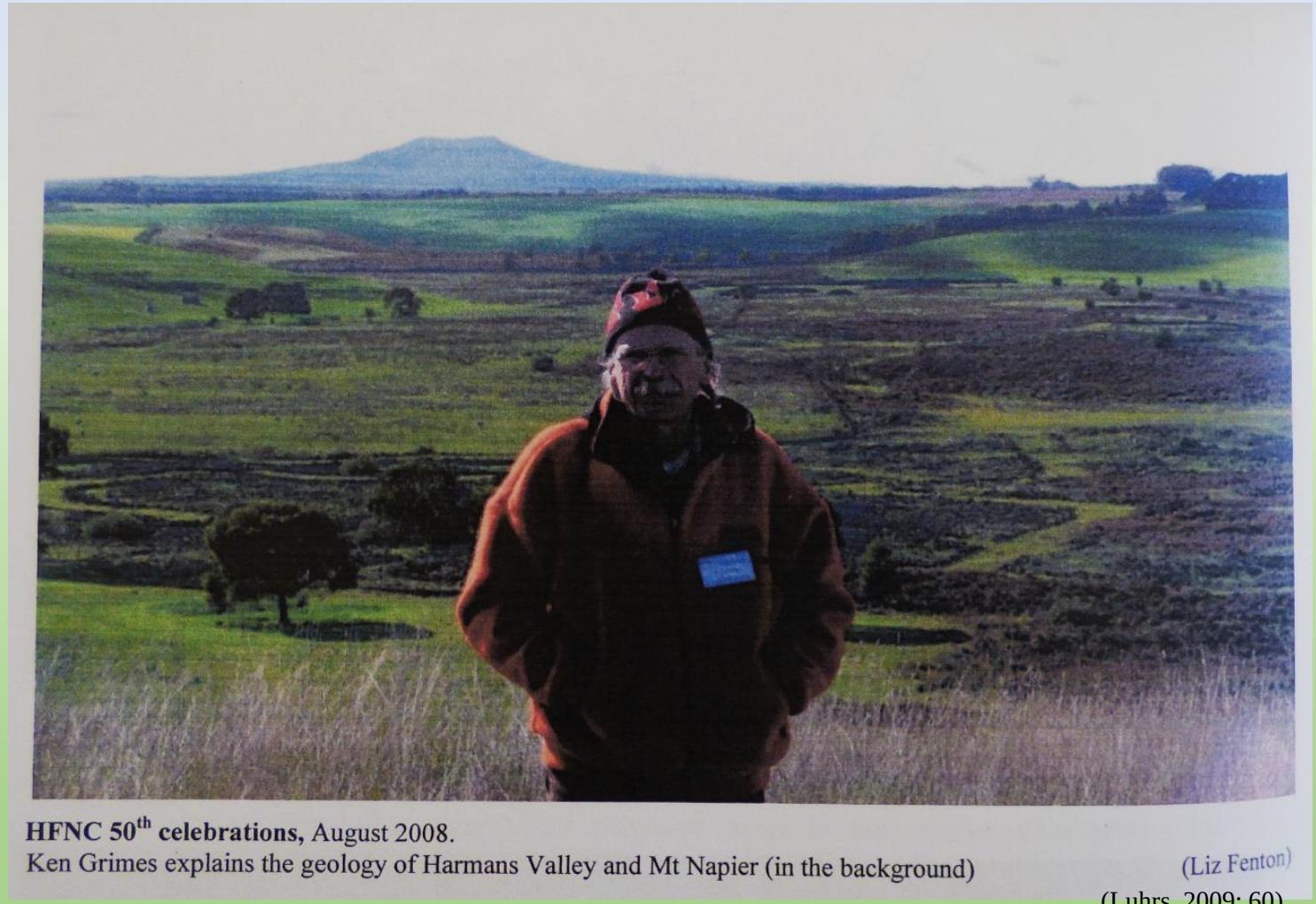
Grimes, K. and Munro D. (2009) in D.E. Luhrs, *Hamilton Field Naturalists Club: Environmental Advocacy and Action, 1958-2008*, Diane Luhrs: Hamilton: pp. 116 , 138

Geological surveys by HFNC members



Lionel Elmore at Byaduk Cave, circa 1972.
(Hamilton and District Tourist Guide, date unknown)

(Luhrs, 2009: 71)



HFNC 50th celebrations, August 2008.
Ken Grimes explains the geology of Harmans Valley and Mt Napier (in the background) (Liz Fenton)

(Luhrs, 2009: 60)

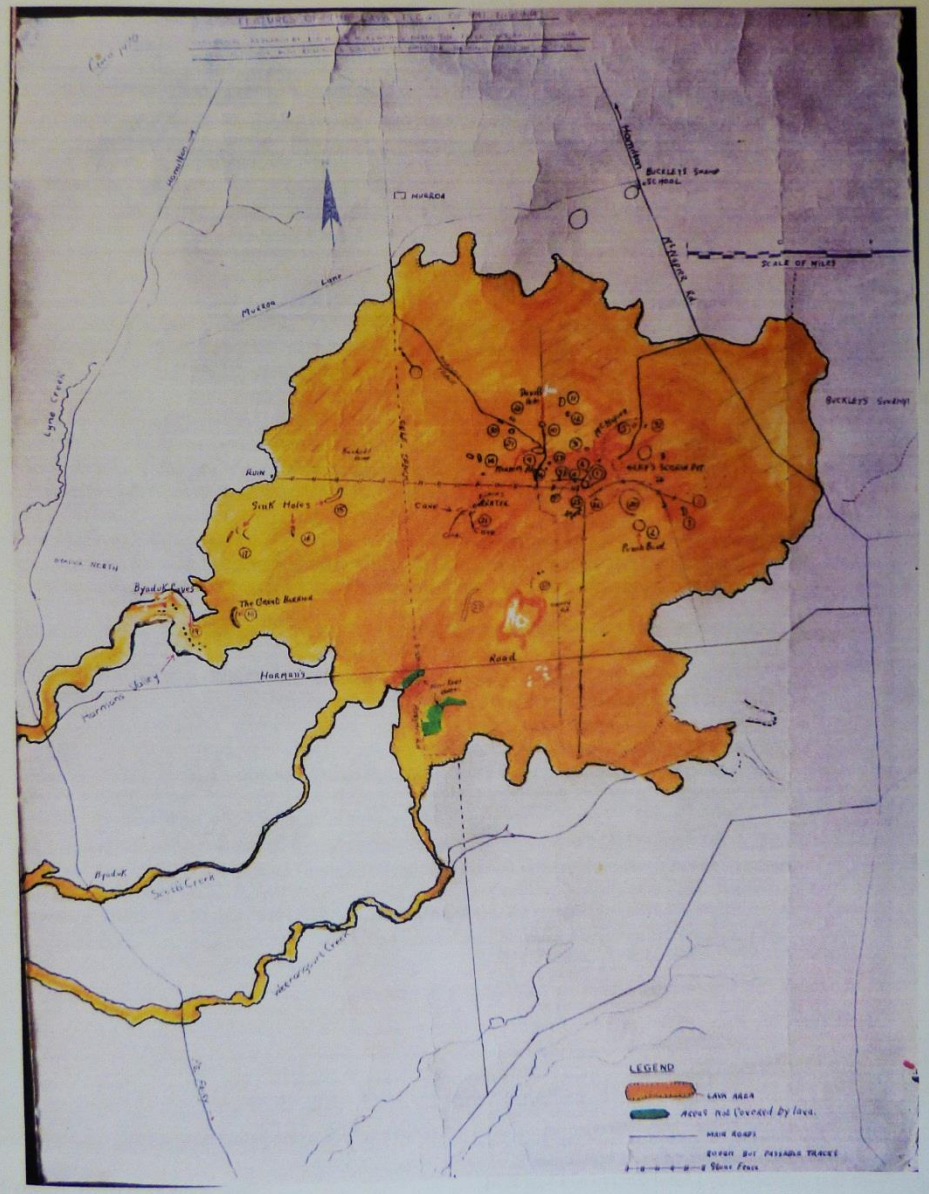
17. **Mt Napier and Byaduk Caves** – survey of volcanic features – Lionel Elmore (1960-70s), Ken Grimes, Janeen Samuel & Reto Zollinger (1990s).
18. **Mt Eccles** – survey of caves – Ken Grimes (1998) and bats – Rod Bird (1983).
19. **Mt Napier Forest** – surveys of flora, birds and mammals – Rod Bird (1970-80s) and mammals – Reto Zollinger (2004).

(Luhrs, 2009: 64)

Appendix 9

Geological Survey Map of Mt Napier

Geological research by Lionel KM Elmore, Hamilton Field Naturalists Club in collaboration with Edmund D Gill, Deputy Director, National Museum, Melbourne (1970).



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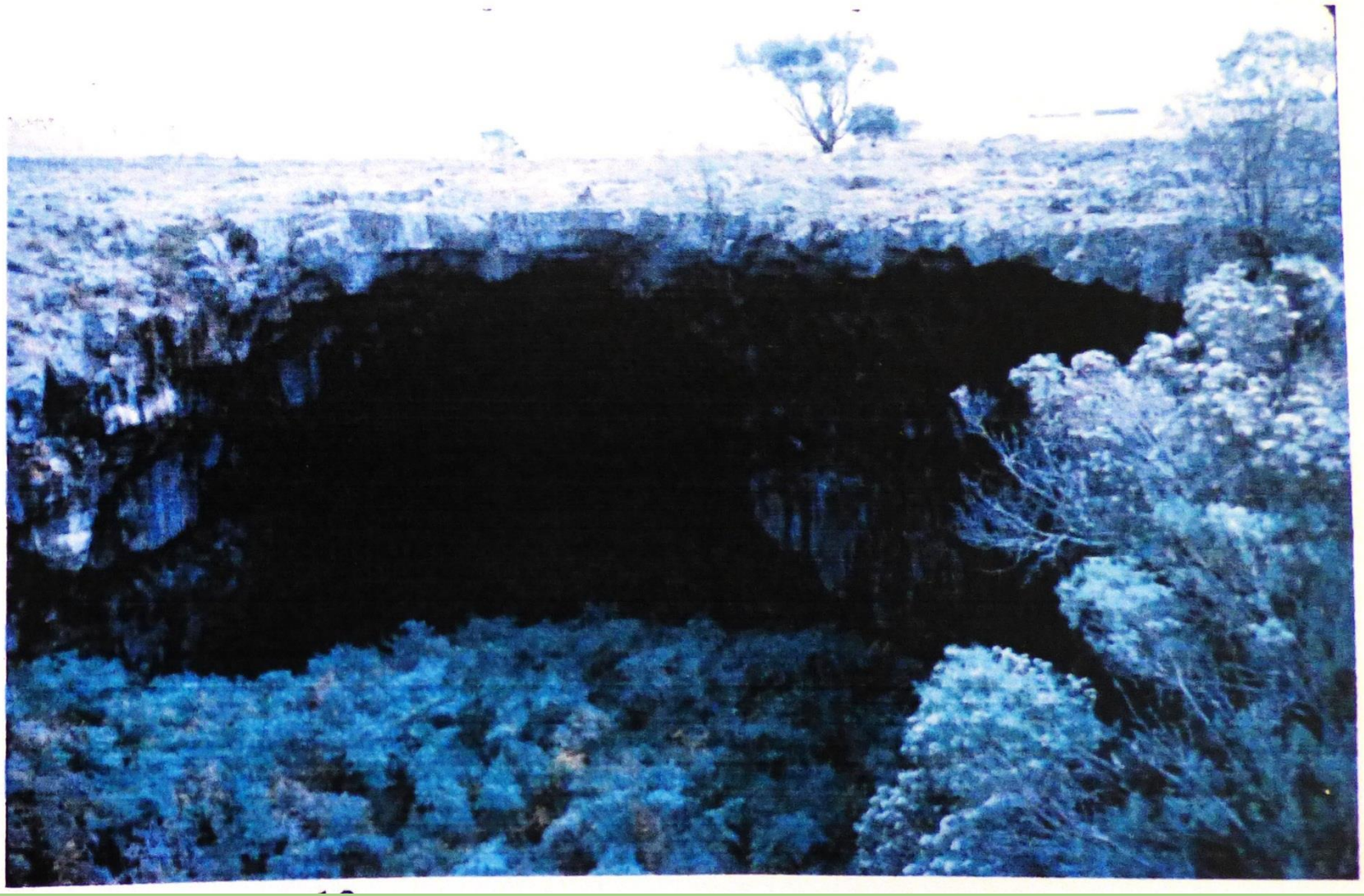
(Luhrs, 2009: 271-2)

1 MAIN SCORIA CONE AND CRATER. MT. NAPIER 1453 FT. ALTITUDE.
2 LARGER CRATER THAN 1. 300 YDS BY 100 FT DEEP. BREACHED EAST SIDE. Lava channel ¼ chns in length. FLOOR 15-20 FT. BELOW BREACH. BASALT FLOWS. EXPLOSION CRATER?
3 SHALLOWER BUT WIDER CRATER ADJOINING LEY'S SCORIA PIT
4 LAVA TUNNEL. OPEN BOTH ENDS 200 YDS BELOW BREACH IN MAIN CRATER 1. LAVA STALACTITES. Bocca (?) "Forge"
5-6 SMALL SPATTER CRATERS WITH FOUNTAIN OF WELDED LAVA
7 SCORIACEOUS AND BASALT HILL POINT OF ERUPTION
8 VERY LARGE BASALT BOULDERS POSSIBLY HURLED FROM 2
9 HILL OF SCORIA HAS BEEN QUARRIED FOR SCORIA BY MENZEL BROS.
10 DEVILS HOLE EXPLOSION CRATER ADJACENT TO 9 100-200 FT DEEP — Depth varies from approx 10ft at lowest perimeter to 130 ft at the highest.
11 HILL WITH POINT OF ERUPTION ON ONE SIDE AND
12 SCORIA CRATER ON THE OTHER (SE.)
13 SCORIA DEPOSITS PROBABLY CARRIED ON SURFACE OF LAVA FLOW
14 GROUP OF FOUR SPATTER CRATERS - ONE WITH STEAM OR GAS VENTS
15 LARGE BARRIER OR SINK HOLE WITH SMALLER SINK HOLE ADJOINING SHOWING SAGGING SHEETS OF LAVA
16 LARGE SINK HOLE CAUSED BY DRAINING OF LAVA
17 GROUP OF SINK HOLES AND BARRIERS
18 "THE GREAT BARRIER"
19 BYADUK CAVES (SEE OLLIVER AND BROWN VIC NAT VOL 80 NO 9)
20 POSSIBLE POINT OF ERUPTION AND LAVA FLOWS. LARGE SHALLOW DEPRESSION CRATER — Portion of Walls Remain & Can be Seen on Air Photo
21 TRUNCATED SCORIA CONE ESTIMATED 80 FT IN HEIGHT WITH CRATER 50-60 FT IN DEPTH. NEAR ITS BASE IS A SMALLER CRATER WITH A BASALT FLOW. STARTING NEAR THE BASE OF THIS SCORIA CONE A LAVA CANAL CAN BE TRACED FOR ABOUT 400 YDS. THIS CANAL OR COLLAPSED LAVA TUNNEL STARTS AS A LAVA CAVE, 30 FT. LONG, AND HAS A NATURAL BRIDGE ABOUT 50 YDS FROM THE CAVE. A SECTION OF THE TUNNEL AT THIS BRIDGE APPEARS ALMOST SYMMETRICAL AND IS ABOUT 12 FT. IN DIAMETER. THE LAVA CAVE APPEARS TO CONTAIN SOME BONE MATERIAL. ANOTHER LAVA CAVE, APPROXIMATELY 60 FT IN LENGTH, IS ADJACENT TO THE LAVA CANAL IN THE VICINITY OF THE NATURAL BRIDGE - WEST SIDE. A third Cave is to be found about ¼ way between the lip of 1st Crater & 1st Cave.
22 A FISSURE EXTRUSION? OF SCORIACEOUS LAVA APPROX. 150 YDS. IN LENGTH, SLIGHTLY CRESCENTIC AND ABOUT 40 FT. IN HEIGHT. IT IS SITUATED ON A SLOPE AND NEAR THE LOWEST POINT A GAS OR STEAM VENT HAS FORMED A SMALL CAVE OR TUNNEL INTO WHICH IT IS POSSIBLE TO CRAWL FOR ABOUT 12 FT. A DEPOSIT OF BAT GUANO ON THE FLOOR. WITHIN 200 YDS. OF THIS EXTRUSION ON THE NORTH SIDE TWO SMALL SHALLOW CRATERS WERE NOTED.
23 LAVA CANAL PARTIALLY COVERED BY SCORIA ERUPTION.
24 POSSIBLE SINK HOLE OR CRATER COVERED BY SCORIA ERUPTION.
25 SMALL LAVA CAVE SOUTH OF 4 AND NEAR A STONE FENCE WHICH PASSES NEAR 4. — "The Forge"
26 SMALL LAVA CAVE NEAR SUMMIT OF 1. ON NORTH WEST FACE.
27 LOW HILL OF BASALT BLOCKS POINT OF ERUPTION.
28 LOW HILL OF BASALT AND SCORIA POINT OF ERUPTION.
29 SHALLOW CRATER 250 YDS X 50 FT in diameter, with low SCORIA Ring
30 SMALL HILL OF SCORIACEOUS LAVA POINT OF ERUPTION.
31 CRATER 100 YDS X 40 FT DEPTH 60 YDS (South) FROM PUBLIC RESERVE (North) BOUNDARY.
32 LOW BASALT HILL POINT OF ERUPTION.
33 MASSIVE DYKE FORMATION EXTENDING FROM NEAR SUMMIT TO A POINT 26 CHNS. TO THE WEST AND CONTINUING AS A FISSURE WITH AT LEAST 4 POINTS OF ERUPTION TO A POINT 58 CHNS. FROM THE SUMMIT.
34 SMALL CRATER WITH SCORIA RING.
35. Ooverap between 4 on same level as (4) & (33) Noteable for as yet unexplained Lava Rings

ey to Geological Survey Map of Mt Napier
ith later comments by Lionel Elmore and Rod Bird.

(Map and Key in HFNC History File)



Byaduk – Bridge Cave, March 1971.
Showing the collapsed lava crust and the extensive fern growth on the Cave floor.
(Lionel Elmore)

(Luhrs, 2009: 13)

Wallacedale Tumuli, HFNC excursion, early 1980s.
(Rae Dempster)

(Luhrs 2009: 73)

Harman’s Valley: Vesicular basalt….

and ropy lava – not just “any old” rocks

29. Byaduk Caves:

Location: Turn east off the Hamilton–Port Fairy Rd at the Byaduk Caves Rd signpost, 0.5 km north of North Byaduk.

Landform and geology: The long lava flow from the volcanic eruption that ran down the Harman Valley was fed by lava tubes that continued to carry liquid lava after the surface cooled to a solid crust. A 1.5 km loop walking trail, with interpretative signs, leads you past several large collapse holes that give views down into the caves; (pictured below, DL). However, entry involves ropes for all but Harman 1 Cave and movement inside requires scrambling over large slippery boulders in the dark. Enjoy a visit into the entrance of Harman 1 Cave but leave the rest to experienced cavers.

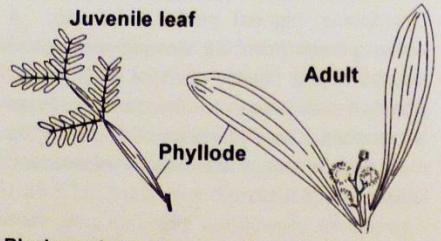
There is a well preserved dry stone wall on the northern boundary and an old sheep croft on the south side of the valley.

Flora: The surface is stony rises with shallow soil on the lava flow that prevents the growth of Manna Gums, so the main trees seen are Black Wattle and Blackwood. The sinkholes have a distinctive moist vegetation. You will see Shiny Cassinia and Kangaroo Apple, curtains of Nodding Saltbush and a wealth of ferns. Most of these caves once had Soft Tree Ferns but home gardeners removed them from all but one cave, where they still survive. Some 20 species of ferns have been found in the sinkholes. They include Sickle Fern, Soft Water-fern, Batswing Fern, Mother Shield-fern, Kangaroo Fern, Common Maidenhair, Austral Bracken and Mother and Common Spleenworts. Trampling severely damages the ferns and prevents them from re-establishing, so be careful where you walk!

Fauna: Small colonies of Southern Bent-wing Bats occupy some of the caves. Do not light fires in the caves because this will disperse the bats and, in winter, may result in their death.

Sub-fossil remains of many animals (some now extinct) were found in the caves, some bodies having been taken there by predators (owls and Spot-tailed Quolls). Other larger remains, including Common Wombat, may have been washed in. One skull found by a member of HFNC, the late Lionel Elmore, showed that Brush-tailed Rock-wallabies once lived there too.

Tiger Snakes are quite common in both the sinkholes and on the surface and may often be seen sunning themselves. Grey Kangaroos and feral goats are commonly seen.



Blackwood showing juvenile and adult foliage (KG)

30. Harman Valley Lookout

Location: Looking east from the Hamilton–Port Fairy Road, about 20 km south of Hamilton.

Landform and geology: A viewpoint up the valley to Mt Napier shows the valley floor which was once a river of lava (pictured below, KG). The lava flow in the valley below you has stony rises and a lava channel with raised levee banks. There are interpretative signs at the carpark. See Mt Napier State Park (below) for further details.

31. Mt Napier (*Tapoc*) State Park

Location: Drive south out of Hamilton on the Port Fairy Rd for 8 km and turn left down Murroa La. Cross the Byaduk-Buckley Swamp Rd and enter the forest at Murroa corner. Drive along Menzels Tk (dirt) 5 km to the former Menzel's scoria pit and park there. Walk from the car park 1.5 km up the steep trail to the top of the mount. Alternatively, walk in the opposite direction (that is, north) down the fence-line 400 m to the Devil's Hole – a crater worth seeing, 20 m east of, but not obvious from, the fence line. **Watch out for leeches!**

It is possible for 4WDs to drive on past Menzel's Pit and connect with Harmans Rd.

Landform and geology: The classic "volcano" shape of this peak makes it one of our most photogenic volcanoes. Recent dating of the rocks suggest that Mt Napier erupted about 32,000 years ago. There are good distant views of all sides from the summit.

The mountain has a central steep-sided scoria cone (the tallest and most intact scoria cone in southern Australia), with a breached crater at the top, which rises above a broad flatter lava shield built of flows that radiated out from the volcano. These lava flows blocked the Harman Valley to dam up Buckley Swamp (see site 21) on the northeast side. A long flow ran

Main Points:

Harman Valley –
Lava flow of stony rises and lava channel with raised channel banks.

Byaduk Caves –
Lava tube vegetation specific to the geology with small colonies of southern bent-wing bats, and sub-fossil remains of many animals – some extinct – are all subject to disturbance through human activity

Mt Napier –
Classic volcano shape – one of the region's most photographic volcanoes.

(Luhrs 2010)

westward down the valley and contains the lava tubes of the Byaduk Caves and the unusual lava mounds of the tumuli.

For the fit and adventurous, Elmore's Cone, lava channel and bridge may be found in the forest directly west of Mt Napier. Start from Menzels Pit and proceed along the rough track south that skirts the mount. After 700 m a stone wall is seen. Follow the old track west along that wall for 1.2 km (a tall Blackwood near the wall is a marker), then walk south through the bush for 250 m to the scoria cone and associated features.

The presence of several stone walls through the dense bracken and stony landscape tells us that the vegetation has changed since the walls were constructed – most probably due to the increased frequency of burning by the settlers that encouraged bracken at the expense of grasses and herbs. Details of history and fauna can be found in *The Victorian Naturalist* (1997) Vol. 114(2).

Flora: Manna Gum is the sole eucalypt in the stony rises landscape, although Swamp Gum occurs on the surrounding basalt plain. Blackwood is the main wattle, although there are a few Black Wattles, mainly on the edges of the park. Tree Everlasting and Cherry Ballart are the main understorey trees; there is a small stand of Prickly Tea-tree on the slope of the mount (an unusual place for this species) and occasional bushes of Sweet Bursaria, Western Golden-tip, Sticky Boobialla, Kangaroo Apple, and Shiny Cassinia throughout the forest. Variable Groundsel, Small-leaved Clematis, Austral Stork's-bill, Bluebells and Ivy-leaf Violets are in flower in late spring. A drive into the forest in December and January is a delight! You will note that the top of the mount is relatively treeless (pictured below, RB), but it was not always so. Major Mitchell's men cut down the trees on the summit in 1836 to allow a view of the country. Fires (the last in 1972 to burn the mount) have kept it clear of timber. Most of the Blackwoods and Manna Gum now on the summit were planted from local seed by HFNC in 1986.

Fauna: Surveys by members of HFNC have revealed the presence of Koala, Eastern Grey Kangaroo, Black Wallaby, Echidna, Common Brushtail Possum, Sugar Glider, Brown Antechinus and Swainson's Antechinus, Brush-tailed [illegible], Bush Rat and Swamp Rat in this forest. Eight species of bat, including Gould's Wattled Bat, Chocolate Wattled Bat, Gould's Long-eared Bat and the Lesser Long-eared Bat, have also been recorded in the forest. The Spot-tailed Quoll also once lived here. Feral goats established a presence in the 1980s, causing damage to the flora on cones and in sinkholes. They are not controlled.

A list of 114 species of bird has been recorded by HFNC, including 16 species of waterbirds seen when the margins near Murroa corner are flooded. Significant bird sightings include Grey Goshawk, Peregrine Falcon, Black Falcon, Rose Robin and Satin Flycatcher. Uncommon birds sighted include Bassian Thrush, Crested Shrike-tit, Sacred Kingfisher and Blue-winged Parrot.

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Landform and geology: These unusual house-sized lava mounds rise abruptly from the lava flow that runs down the Harman Valley. They formed when the pressure of the liquid lava core pushed up the surface crust, but why this should have been localised to form the discrete mounds is uncertain.

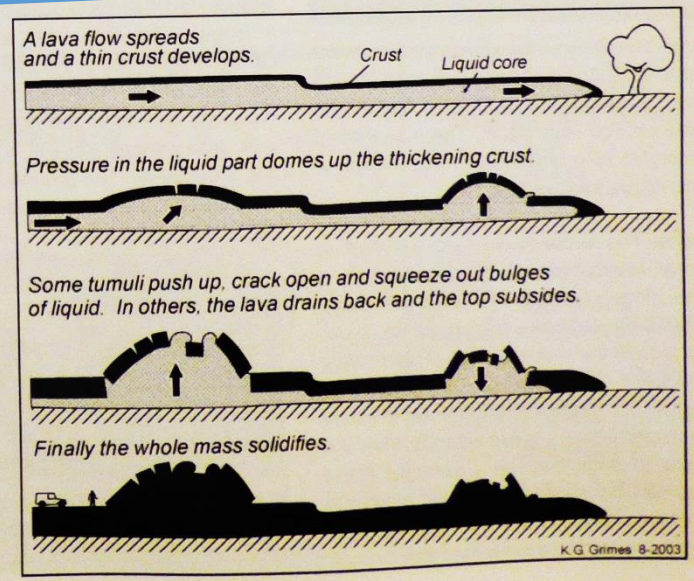
You can park beside the road and walk in along a lane, with drystone wall, for a close look at the nearest tumulus, but please keep the gate shut. Note the cracked and outward-tilted plates of the original lava crust. An interpretive leaflet is available from the Hamilton Visitor Information Centre.

To the south of the lava flow is a partly drained swamp that fills in a wet year. The swamp was an important source of eels, Blackfish and other food for the Aboriginal people. Remains of their stone shelters can be seen on the adjacent lava flow.

Flora: The most notable species present now are Blackwood and Tree Violet, the latter growing as a shrub along the rocky edges of the lava field.

Fauna: Waterbirds are prevalent when the adjacent swamp area is flooded. The Striated Field Wren is a notable species among the cover of rocks and Tree Violet, while the Superb Fairy-wren is also common.

Most of the tumuli are on private land.



Formation of Tumuli: a sketch showing the possible process of tumuli-formation.

Main Points:

Wallacedale tumuli – Significant geological phenomena and the presence of remains of aboriginal shelters on the lava flow - very significant as evidence of Aboriginal settlement and of the rich source of food of the former adjacent swamp.

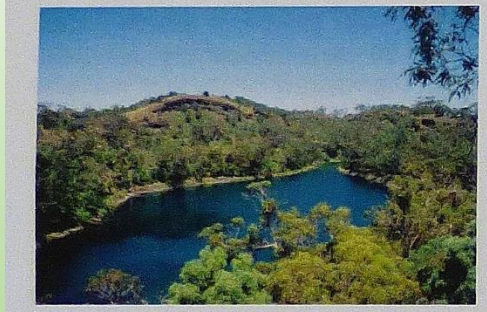
Mt Napier (continued) – A rich diversity of plants and animals but with a changed vegetation profile (now dense bracken) – possibly due to changed fire regimes. Several stone walls remain indicating early European settlement in the region.

(Luhrs 2010)

33. Mt Eccles (*Budj Bim*) National Park

Location: Proceed west from centre of Macarthur, following the signs from the town.

Landform and geology: One could write a book about this delightful National Park, and spend several days exploring its features. The volcano is a line of craters, the largest being Lake Surprise (pictured below, KG). There is a variety of volcanic landforms, large and small, including craters, scoria cones, stony rises, lava channels, and lava caves.



Flora: The flora of the stony rises is similar to that of Mt Napier State Park, with Manna Gum, Blackwood and Cherry Ballart the dominant tree vegetation. The presence of the crater lake enables a wide range of herbaceous species to exist.

Fauna: The fauna found here is similar to that at Mt Napier, except that there is a wider range of waterbirds commonly seen. Yellow-bellied Gliders are also found here. This is near the western edge of their range in Victoria. The presence of the glider is revealed by V-shaped gouges on the bark of selected trees – these wounds allow the gliders to drink the sap. Some of these trees can be seen on the walk along the rim of the crater to the cave. One tree near the information centre is a feed tree.

This forest is the last area in southwest Victoria in which the endangered Spot-tailed Quoll has been reliably reported.

The eucalypt forest is infested with Koalas – so many that some have had to be removed to save the trees. We can no longer guarantee that you will see a koala, but your chances are pretty good.

Activities: The Park caters for day-trippers and campers. There are picnic grounds, barbeques (with thieving Kookaburras), toilets, and interpretative signs. The secluded campsites include some sited in the floor of an old lava channel. One campsite has a hollow tree with a colony of Sugar Gliders, which come out at dusk (just after it gets too dark to see more than a silhouette against the sky!).

There is bus parking close to the main lookout and a choice of interconnected high and low-level walks around the crater lake. A longer 6-km loop walk along the lava canals is delightful in the wet season when the ground is covered with mosses, liverworts and other wet-area plants. This walk also passes several smaller craters and lava caves. The ground is quite stony, even on the tracks, so wear good boots, and watch out for leeches.

Mt Eccles, Carmichael Cave: showing lava flow lobes over a Pahoehoe (ropy lava) floor (KG).

34. Mt Rouse (*Kolor*)

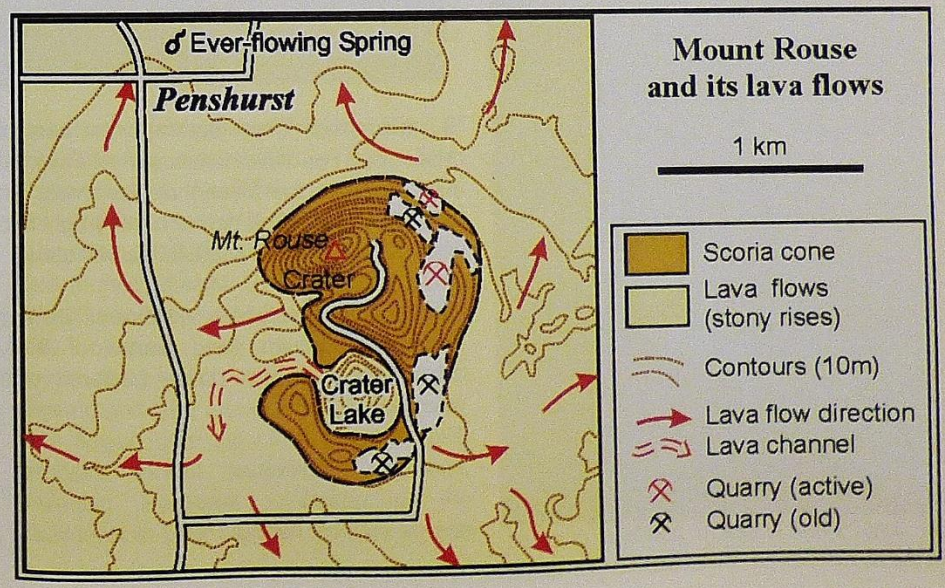
Location: Overlooking the township of Penshurst, this extinct volcano was named by Major Thomas Mitchell in 1836. Drive 2 km south from Penshurst on the road to Warrnambool (past the Kolor property homestead) and turn east onto the access road to the reserve. A sealed road leads to a car park. From there it is a short walk to the summit. Great views can be had of the surrounding lava plains and stony rises as well as the Grampians/Gariwerd to the north, and Mt Napier to the west.

Landform and geology: Mt Rouse is a composite volcanic cone of scoria (fragments of ejected material) and basalt lava flows (see map below, KG). The two components can be seen in the quarries at the entrance to the reserve (the quarry on the right is better, with a safety fence). The scoria cone rises 100 m above the lava plain. The lava flows from Mt Rouse are the longest in the west Victorian volcanic province – extending for at least 60 km south to the present coast at Port Fairy.

In the middle of Penshurst's town park is the 'Everflowing Spring' which is fed by water that soaks into the stony rises and scoria cones to the south and travels to the spring through cracks and bubbly vesicular bands in the lava.

The Volcanoes Discovery Centre is housed in the former Shire of Mount Rouse Council Chambers. The building is constructed of local bluestone. The Centre is staffed by volunteers and is open from 10 a.m. to 4 p.m. on Friday, Saturday and Sunday as well as during school holidays.

Fauna: Eastern Grey Kangaroos, Red-necked Wallabies and Black Wallabies may be seen.



(Luhrs 2010)

36. Lake Condah and Allambie Wetlands

Location: Lake Condah adjoins the western edge of Mt Eccles National Park. This is *Gunditj-mara* country, part of the Budj Bim National Heritage Landscape declaration by the Australian Government in 2004. The lake and much of the adjacent lava flows (Allambie, Muldoons and Kurtonitj), the former Condah Mission and part of the Darlot Creek–Tyrendarra flow (Tyrendarra Indigenous Protected Area), are vested in the *Gundtj Mirring* organisation.

There are two main ways to see the lake.

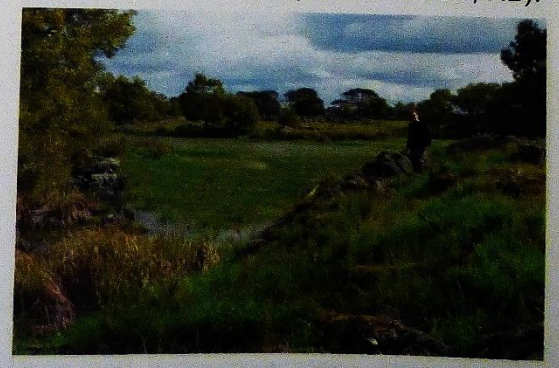
1. Contact Budj Bim Tours (Winda-mara, Scott St, Heywood) and arrange for a guide from the local community to conduct a tour, including a visit to the eel traps through Mt Eccles National Park.
2. From Mt Eccles – ride a mountain bike on the new trails through the Budj Bim lava landscape to Lake Condah. Works are in progress in 2010 to install facilities at Lake Condah, Lake Gorrie and Allambie.

Landform, geology and history: Much of the following information is taken from "Lake Condah Restoration Conservation Management Plan" (Winda-mara Aboriginal Corporation, 2008). The Condah Swamp was formed after Mt Eccles erupted some 30,000 years ago and the Tyrendarra lava flow blocked and diverted streams, eventually creating the massive Condah Swamp and later Lake Condah. This 'new' lava flowed over the older basalts, which overlaid ancient sedimentary deposits, including limestone. Dating of the sediments in Lake Condah indicate an age of 8,000 years. The lake was described in 1843 as:

"a splendid freshwater lake…about a mile and a half long and three quarters of a mile wide and contains almost every variety of fish in abundance, with swans, ducks etc. It is of considerable depth and receives a river about 50 yards broad; one side is bold and rocky and contains a number of small caves into one of which a beautiful stream empties itself, and the other side is a gently sloping shore…" (Portland Mercury, 11 Jan 1843).

Europeans occupied the land around the lake in 1841. The *Gunditj-mara Kerupmar* clan conducted guerilla warfare (Eumeralla Wars) against the invaders in the Port Fairy–Mt Napier–Condah area. By 1846 their resistance was broken (after deployment of the Native Police Corps in 1842).

An extensive aquaculture system of channels, ponds and weirs were constructed by the *Gunditj-mara* people in the Condah–Wallacedale–Tyrrendarra area (Allambie eel-trap site pictured below, RB).



At Lake Condah there are about 4 km of trapping systems. Stone walls and, in small bays, barricades of vertical stakes, were placed to divert eels into races where they could be trapped in a basket. Channels were dug between stony flows to divert water into holding ponds so that eels could be kept for consumption long after the seasonal flows had stopped.

The swamp and lake were progressively drained from 1875 until 1954, when the drains were deepened and extended to completely empty the lake. The Condah Swamp drain passes through a barrier near the southern edge of Lake Condah.

Moves were made in 1970 by the then Fisheries & Wildlife Division to construct a weir on the drain to restore the lake for wildlife habitat and duck-hunting opportunities. In 1986 the *Kerrup-jmara Aboriginal Elders* sought to regain the use of the eel trap systems and cultural values of the lake and surrounds. They were successful in regaining 53 ha of the Condah Mission site and they developed a *Lake Condah Heritage Management Plan & Strategy* in the 1990s.

In February 2002, the *Lake Condah Sustainable Development Project* was launched, with the aim of restoring the lake and cultural connections (looking south west pictured above, RB). The hydrological impact studies, public communication and consultation among the various government departments concluded in 2009, and the construction of the proposed weir finally commenced in February 2010.

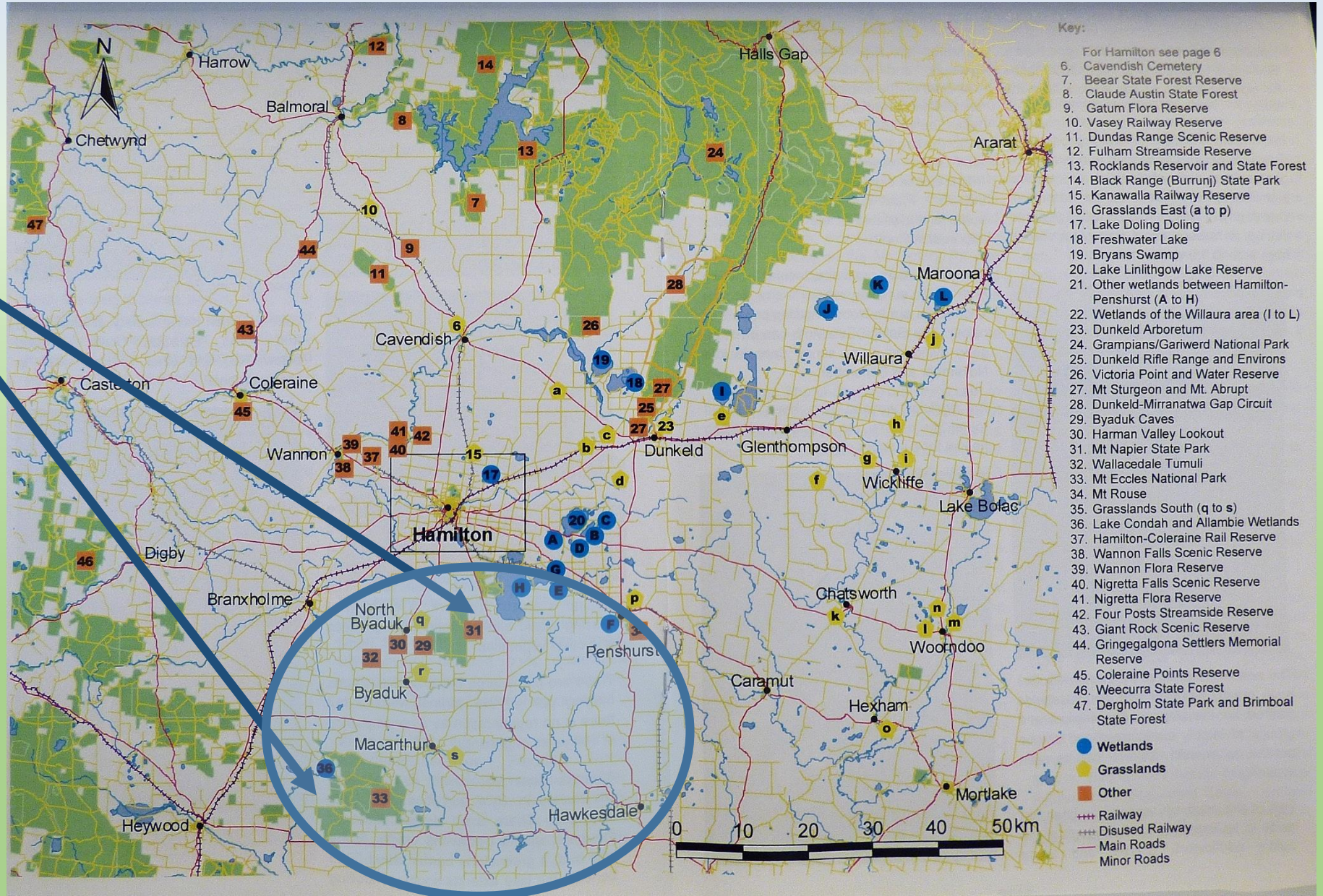
Flora: The flora of the adjacent Manna Gum/Blackwood forest is similar to that at Mt Eccles. The flora of the present lake is dominated by weeds and pasture species but this should change with the new works.

Fauna: The water area is renowned for Short-finned Eel and Blackfish. Spot-tailed Quoll once inhabited the adjacent stones area. Koala, Eastern Grey Kangaroo, Black Wallaby and Yellow-bellied Glider are found in the forest. Apart from a more varied list of waterbirds (including Brolga and Latham's Snipe), the other fauna is similar to that found at Mt Napier.

The bird list (including Striated Fieldwren pictured above, RB) of more than 100 species should expand once water is returned and reed beds are restored to favour Magpie Geese, Australasian Bittern and nesting ibis and spoonbills.

(Luhrs 2010)

Harman Valley – is a significant part of a much larger volcanic region



Luhrs, 2010: 36-7

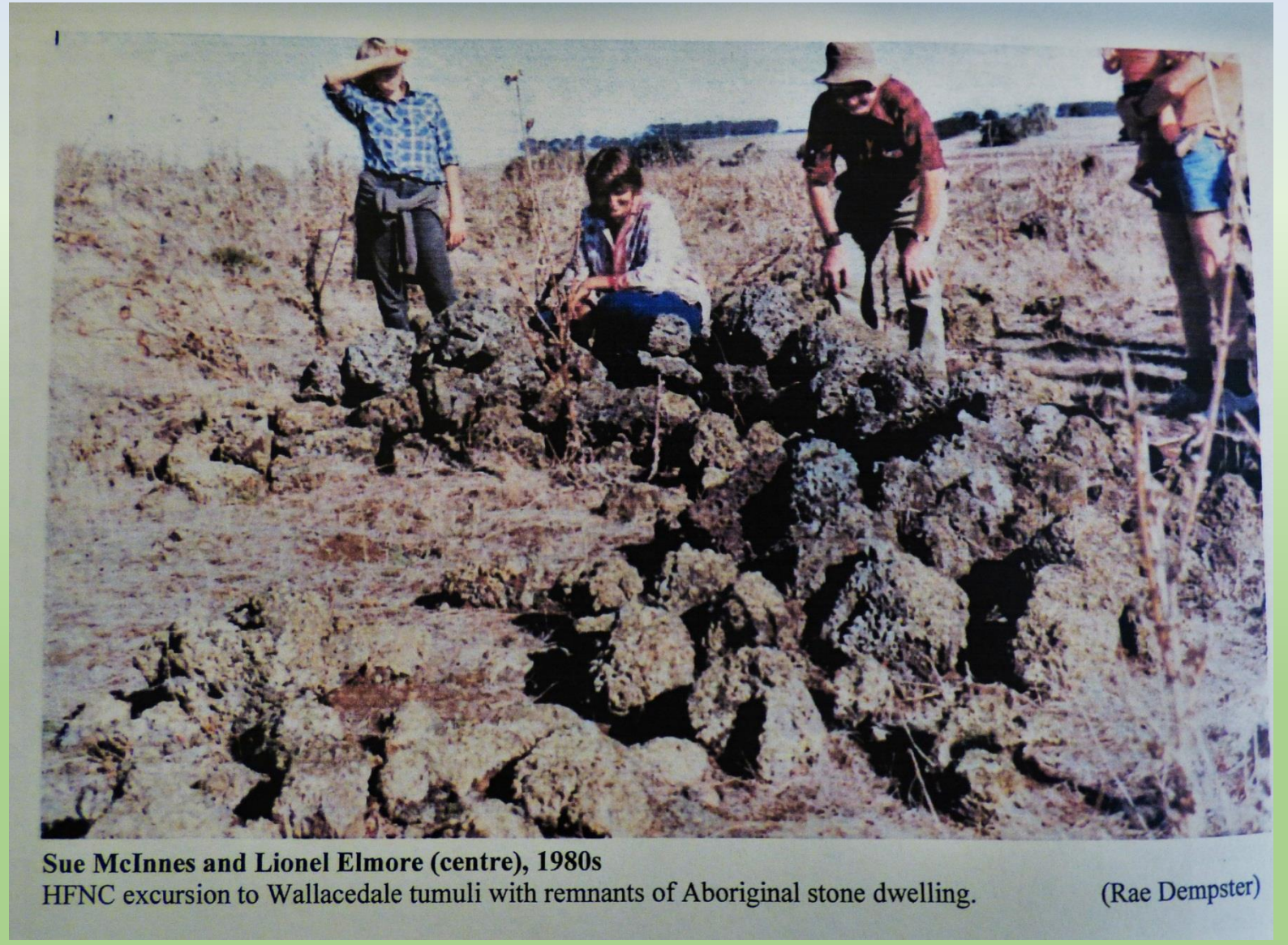
Aboriginal settlement

Physical evidence of aboriginal settlement remains in

- Stone houses and weirs and fish traps in Budj Bim, and

- Remnants of stone houses along the Harmans Valley lava flow near the Wallacedale tumuli.

Aboriginal stone dwellings on Harmans Valley lava flow



Sue McInnes and Lionel Elmore (centre), 1980s
HFNC excursion to Wallacedale tumuli with remnants of Aboriginal stone dwelling. (Rae Dempster)

(Luhrs 2009: 8)

Wallacedale tumuli and remains of Aboriginal stone houses, June 2001.
Ken Grimes.

(Diane Luhrs)

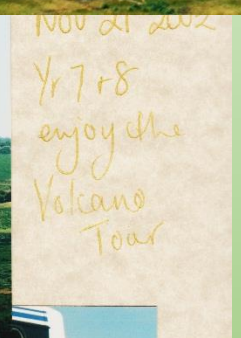
(Luhrs 2009: 20)

Visitors and school excursions - photos by Diane Luhrs 1993-2013

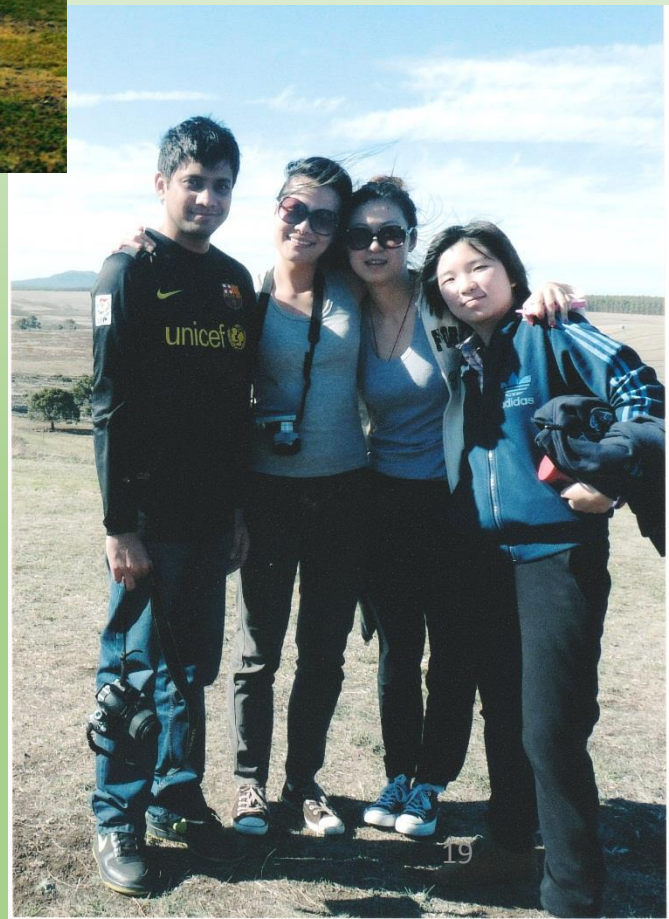
YEAR 8 SCIENCE EXCURSION INTO WESTERN VICTORIA'S VOLCANIC PAST.

Lava tubes at Byaduk.

Warren Roney, Phil Ross, Doug Ward with "SE" in tunnel at Mt Eccles



Mt Napier and Harmans Valley feature in school geography/science/SOSE curricula with excursions and reports set as assessment tasks and as ‘must-see’ places of interest for international visitors – Monash University students from Bangladesh and China, 2013.



Mt Napier and Harmans Valley – February 2018

Feb 2018

Nov 2001

Dewar Goode's 1959 AGM President's Report

A keen and well-informed FNC such as Hamilton is ... to ensure that ... important areas are established under a planned programme which will ensure that our indigenous plant and animal life and features of special interest are preserved and presented to the people for their enjoyment.

He further added:

it is better and cheaper to preserve some natural feature **...** *than to try and replace the feature*

(Luhrs 2009: 63)

‘Unproductive wastelands’ are areas of landscape significance – and they are ‘productive localities’

1. They retain the remnants of the previously extensive native flora and, therefore, habitats for native fauna.

2. They contain evidence of local Aboriginal habitation and activity – long after other areas had been taken up and altered through the activities associated with pastoralism and agriculture.

Harmans Valley lava flow is one such area – too difficult to cultivate – and, so, conserved….

until the recent arrival of machines able to crush the rocks and hence:

- to disrupt/destroy the geological formation (the rocks) of the lava flow from Mt Napier;
- to eradicate the geological and Aboriginal history of the area;
- and to remove the native flora and fauna of the relatively previously undisturbed lava flow.

Review of SGSC Planning Scheme Amendment C36 – Part A

1. Acknowledgement of "**a threat of permanent and irreversible damage**" to a significant landscape (p. 2).
2. "The proposed amendment will achieve the objectives of section 4(1)(d) of the Planning and Environment Act 1987 **as it aims to conserve and enhance places of scientific, aesthetic, historical interest and special cultural value**" (p.8). Currently the amendment C36 **DOES NOT** do so!
3. "Planning authorities … should endeavour … [to] balance conflicting objectives in favour of net community benefit and sustainable development for the benefit of present and future generations" (p.8). **CONFLICTS WITH POINT 2**
4. "**Avoiding development impacts** on land that contains … landscape amenity … cultural heritage and recreation values, assets and recognised uses" (p.8) …. Assessment comment "… development impacts should be avoided" (p.9). AND, specifically, Harmans Valley is recognized as one such place (p.10). **AGREE**
5. Natural resource management – "to protect productive farmland" (p. 10), BUT Harmans Valley lava flow is not currently regarded as productive farmland (p. 11). **AGREE**
6. The real issue is "**C36 enables continuation of normal 'as of right' farming practices and included exemptions for farm tracks and fencing. This is considered an appropriate balance with the need for conservation of an area with special cultural value"** (p.11). This is a real problem for managing the lava flow for conservation of significant heritage and landscape values as "as of right" farming practices have the potential to degrade or destroy the significant features in the Harmans Valley lava flow.
7. Environmental and landscape values – Assessment comment: "local policy contains strong direction to protect significant volcanic features and their setting" (p. 16). **NOT SO**! "Minimise" and "discourage" has not ensured the protection of "volcanic peaks and features" (p.16).
8. Key issues discussed – The purpose of the SLO "not to be seen as the only mechanism to control or protect the Harmans Valley area" (p. 20). The SLO **MUST** be seen as the mechanism to protect against degradation/ destruction of the remaining intact volcanic features of the Harmans Valley lava flow and hence of its geology and associated flora, fauna and relics of Indigenous habitation.

Conclusions

1. The lava flow in Harmans Valley extending from Mt Napier and containing evidence of significant geological formations and associated flora and fauna ought to be protected for conservation of this natural history.

2. The lava flow in Harmans Valley contains real and significant evidence of Aboriginal habitation and ought to be protected because of this anthropological/archaeological significance.

3. **The Southern Grampians Shire ought to institute a Significant Landscape Overlay that recognises and protects the Harmans Valley lava flow and its associated natural and anthropological features but which does not hinder farming activities outside and/or adjacent to this lava flow.**

4. **Conservation ought to be over the whole length of the lava flow and not just for selected sections because the whole flow provides the significant context of the different significant features.**

Conclusions

5**. The Southern Grampians Shire Council's SLO for Harmans Valley must:**

*** provide a precise map that shows clearly the boundaries of the lava flow and other adjacent significant related features (such as stone walls), and**

*** inform the public of which particular areas are included in the SLO, which activities are permitted on this designated area and which activities are forbidden or subject to SGSC SLO regulation.**

The proposed C36 overlay does not appear to specify that the volcanic rocks must not be crushed or moved. Therefore, the overlay does not appear to protect the integrity of the lava flow and its associated features. The farm business exemptions allowed are problematic for the protection of the features of this significant landscape.

6. **The Southern Grampians Shire Council's Significant Landscape Overlay ought to include regulation of how, where and how many farm tracks and fences are constructed along and across the Harmans Valley lava flow to reduce impact over this significant landscape. These structures should not be exempted from the SLO requirements.**

References

- Grimes, K. and Munro D. (2009) 'Volcanic Plains of Western Victoria', in D.E. Luhrs, *Hamilton Field Naturalists Club: Environmental Advocacy and Action, 1958-2008*, Hamilton: Diane Luhrs: pp. 116, 138.
- Hills, E. Sherbon (1975) *Physiography of Victoria: An Introduction to Geomorphology*, Australia: Whitcombe and Tombs.
- Luhrs, D.E. (2009) *Hamilton Field Naturalists Club: Environmental Advocacy and Action, 1958-2008*, Hamilton: Diane Luhrs.
- Luhrs, D.E. (Ed.) (2010) *Hamilton Region Nature Guide*, Hamilton: Diane Luhrs.