

HFNC Excursion to Cobra Killuc Wildlife Reserve on 21 Nov. 2020

Rod Bird

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Our main focus was on the grassland flora of the Cobra Killuc Reserve (an area our members had not previously visited), plus a brief stop at some roadside reserves on the Woorndoo-Streatham Rd.

Our group left Hamilton at 9.10 am, driving on the Hamilton highway to Hexham where we turned left onto the Woorndoo Rd. The Cobra Killuc Reserve was located about 10 km along that road and we entered on the south side, through a 120-ha plantation of eucalypts that were sown in the late 1940s.

Background to the Cobra Killuc Wildlife Reserve

This was an area of Crown Land controlled by the then Forests Commission (FCV). The 13th Annual Report (1950) for the financial year 1948-49 states “*Direct sowing – hardwoods. The second block of 150 acres in Cobra Killuc Reserve was rotary hoed in strips and line-seeded with Sugar Gums and wattles. Trial sowings of Yellow Gum, Mahogany Gum and other species were carried out therewith*”.

The Land Conservation Council’s (LCC) final report (1978) recommendation for the area of 507 ha was that it become a Wildlife Reserve, that when the 86 ha of pines were harvested the area be regenerated with native species, and that no further plantations be established (it seems that the FCV had established pines but details have not been found). It was also proposed that species such as the Plains Wanderer, Australian Bustard and Eastern Barred Bandicoot (EBB) could be returned there. A number of EBB was established there from 1989 but apparently the population did not persist.

In 2002, the now treeless Ridge Paddock of 130 ha, adjacent on the east boundary, was purchased and added to the Wildlife Reserve, bringing the total area to 662 ha. The Ridge Paddock (and a considerable portion of the adjacent reserve) has an EVC of Plains Grassland. Less than 0.5% of that EVC remains on the volcanic plains. A significant portion of the Wildlife Reserve contains Plains Grassy Woodland EVC and the Management Report by DSE in May 2005 (*Ridge Paddock addition to the Cobra Killuc Wildlife Reserve*) also stated that the reserve had “*one of the most species-rich examples of Plains Grassy Woodlands remaining in Victoria*” and that less than 6% of the original extent of that EVC remains.



Stop 1. ☆

The majority of the trees we saw on entering the western block were Sugar Gum (*Eucalyptus cladocalyx*) and Southern Mahogany (*E. botryoides*). Some Yellow Gum (*E. leucoxylon*), Red Box (*E. polyanthemos*), Black Wattle (*A. mearnsii*) & Cherry Ballart (*Exocarpos cupressiformis*) were also seen.

There was evidence that there had been an extensive recruitment of Sugar Gums over the years. There was also a great deal of timber on the ground among the standing trees, indicating extensive losses over periods of low rainfall. A couple of old Yellow Gum near the north boundary were flowering. There was little evidence at this site that any harvesting of timber had occurred over the years.

Immediately obvious was the serious damage to the open grassland as a consequence of hoons driving 4WDs all over the area in winter. Unfortunately, this activity is now rampant on most of the reserves in the SW, aided by the lack of management/supervision and lack of any educational signage indicating:

- The name, nature and purpose of the reserve
- That off-road activities are not permitted, due to the direct damage done to the native flora and the spread of weeds and disease.

The sandy loam soil of the SW area grassland flora did not support a vigorous growth of Kangaroo Grass (*Themeda triandra*), despite the absence of fire for many years. There was a dense growth of Toad Rush (*Juncus bufonius*) in the wheel ruts and some large areas of near-bare ground created by 4WD ‘circuit work’. Fortunately, this site has so far not been severely affected by the encroachment of pasture plants.



Stop 1. Off-road vehicle impacts on the grassland in winter – ruts, bare ground and Toad Rush



One option may be to lock the reserve over winter, to keep vehicles out. Similar problems have been seen in 2020 at Lake Linlithgow, Lake Kennedy, Bryans Swamp, Four Posts Streamside Reserve, Nigretta Scenic Reserve, Fulham Streamside Reserve and Dundas Range Scenic Reserve.

We made a survey of the major flora species seen at Stop 1 (see below). There was no record of Toad Rush in the plant survey done by John Stuwe in 1986 (see DSE report of May 2005 above) – this native species invades disturbed sites. We also found Tree Violet (*Melyctus dentatatus*), Hedge Wattle (*A. paradoxa*), Creeping Bossiaea (*Bossiaea prostrata*), Candles (*Stackhousia subterranea*) and Swamp Isotome (*Isotoma fluviatilis*), not recorded by Stuwe. Species not reported by Stuwe (or seen by us) include 20 species recorded by Kevin Sparrow (13/09/2015-30/09/2018): *Allocasuarina* sp., *Asperula scoparia*, *Brunonia australis*, *Chaemaescilla corymbosa*, *Cheilanthes austrotenuifolia*, *Coronidium scorpioides*, *Cyngneton procerum*, *Drosera aberrans*, *Einadia nutans*, *Hypoxis hygrometrica*, *Lomandra filiformis*, *Luzula meridionalis*, *Pauridia vaginata*, *Plantago varia*, *Pterostylis concinna*, *Stackhousia mongyna*, *Thelymitra ixiooides*, *Thysanotus patersonii*, *Wahlenbergia gracilis*, *W. stricta*.

List of Native indigenous flora seen at Stop 1

	Botanic Name	Common Name
1	<i>Acacia mearnsii</i>	Black Wattle
2	<i>Acacia paradoxa</i>	Hedge Wattle
3	<i>Acaena echinata</i>	Sheep's Burr
4	<i>Acaena novae-zelandia</i>	Bidgee Widgee
5	<i>Arthropodium</i> sp.	Chocolate Lily
6	<i>Arthropodium strictum</i>	Chocolate Lily
7	<i>Austrostipa</i> sp.	Spear Grass
8	<i>Bossiaea prostrata</i>	Creeping Bossiaea
9	<i>Bulbine bulbosa</i>	Bulbine Lily
10	<i>Burchardia umbellata</i>	Milk Maid
11	<i>Caesia calliantha</i>	Blue Grass-lily
12	<i>Chrysocephalum apiculatum</i>	Common Everlasting
13	<i>Convolvulus angustissimus</i>	Pink Bindweed
14	<i>Dichelachne crinita</i>	Long-hair Plume-grass
15	<i>Dichondra repens</i>	Kidney-weed
16	<i>Diuris</i> sp. (<i>chryseopsis</i> ?)	Golden Moths
17	<i>Drosera hookeri</i>	Grassland Sundew
18	<i>Drosera</i> sp.	Sundew
19	<i>Eryngium ovinum</i>	Blue Devils
20	<i>Euchiton japonicus</i>	Creeping Cud-weed
21	<i>Exocarpos cupressiformis</i>	Cherry Ballart
22	<i>Geranium solanderi</i>	Austral Crane's-bill
23	<i>Glycine latrobeana</i>	Hop Glycine
24	<i>Gonocarpos tetragynus</i>	Common Raspwort
25	<i>Hakelia suaveolens</i>	Sweet Hound's-tongue
26	<i>Hydrocotyle laxiflora</i>	Stinking Pennywort
27	<i>Hypericum gramineum</i>	Little St John's Wort

28	<i>Isolepis</i> sp.	Sedge
29	<i>Juncus bufonius</i>	Toad Rush
30	<i>Kennedia prostrata</i>	Running Postman
31	<i>Leptorhynchos squamatus</i>	Scaly Buttons
32	<i>Lobelia pratioides</i>	Poison Lobelia
33	<i>Lomandra nana</i>	Dwarf Mat-rush
34	<i>Melyctis dentatus</i>	Tree Violet
35	<i>Microlaena stipoides</i>	Weeping Grass
36	<i>Microtis unifolia</i>	Common Onion-orchid
37	<i>Oxalis perennans</i>	Grassland Wood-sorrel
38	<i>Pentapogon quadrifidus</i>	Five-awned Spear-grass
39	<i>Pimelea curviflora</i>	Curved Rice-flower
40	<i>Pimelea humilis</i>	Common Rice-flower
42	<i>Poa morrisii</i>	Soft Tussock-grass
41	<i>Poa sieberiana</i>	Grey Tussock-grass
43	<i>Ptilotus erubescens</i>	Hairy Tails
44	<i>Ptilotus macrocephalus</i>	Featherheads
49	<i>Rumex dumosus</i>	Wiry Dock
47	<i>Rytidosperma caespitosum</i>	Wallaby-grass
45	<i>Rytidosperma geniculatum</i>	Kneed Wallaby-grass
46	<i>Rytidosperma setaceum</i>	Bristly Wallaby-grass
48	<i>Rytidosperma</i> sp.	Wallaby-grass
50	<i>Stackhousia subterranea</i>	Candles
51	<i>Thelymitra pauciflora</i>	Slender Sun-orchid
52	<i>Themeda triandra</i>	Kangaroo Grass
53	<i>Triptilodiscus pygmaeus</i>	Common Sun-ray
54	<i>Wahlenbergia</i> sp. (<i>capillaris</i> ?)	Blue Bell



Common Everlasting



Hop Glycine



Swamp Isotome



Common Sun-ray



Hairy Tails



Sweet Hound's Tongue



Featherheads



Common Onion Orchid



Cobra Killuc grassland & rock



Toad Rush



Chocolate Lily

Birds were vocal but few in number: we had Grey Shrike-thrush, Crimson Rosella, Red Wattlebird, Brown Thornbill, Rufous Whistler, Grey Fantail, Horsfield's Bronze-cuckoo and Yellow-tailed Black-cockatoo.

One local farmer with children and a dog drove through the reserve at lunch time (and did not re-appear later) but otherwise we had the area to ourselves.

Stop 2. ☆

For a while after lunch we continued our perusal of Site 1 before driving back out of the reserve and turning left onto Wordleys Lane that, after a few km, took us to the southern edge of the eastern part of the Cobra Killuc Wildlife Reserve. The paddock to the east of the N-S fence is the **Ridge Paddock**. It is now treeless but may once have been a grassy woodland.

Trees in belts north and south of the reserve have presumably been planted many years ago but on the adjacent Wordleys Lane there are many large Tree Violet shrubs that are most unlikely to have been planted in those days and probably also grew with Black Wattle and Cherry Ballart in the paddock.

The Ridge Paddock is grazed each summer with stock from an adjacent farm, to exert some control of the grass biomass, to maintain floristic diversity. Other than that, the reserve seems to have received no recent management, judging by the untreated growth of Bent Grass (*Agrostis stolonifera*?) at its entrance.

Bent Grass spreads by stolons and seed and has the potential to completely blanket out the native species. We found patches of the weed, each 2-5 m in diameter on both sides of the fence and on the N-S track. This weed had obviously spread from the road entrance and track. Alarm bells should be ringing. Unless action is taken quickly to spray out this menace this reserve will ultimately be overrun and useless as a conservation reserve. Why has this hazard not been recognised and dealt with?



Bent Grass in the Ridge Paddock



Bent Grass and vehicle bogging in Cobra Killuc

Off-road vehicle activity in the western part of this area (Cobra Killuc paddock) was also apparent, with a vehicle having bogged about 100 m from the entrance and 30 m from the track. Circles of Bent Grass were evident nearby.

This area of Cobra Killuc appears to have a heavier soil of volcanic origin and it contains a much greater density of Kangaroo Grass than we found on the western block.

Currently, the grassland remote from the patches of Bent Grass infestation is in fair condition.



There has apparently been no burning to maintain the native grasses and suppress the Yorkshire Fog Grass and Cocksfoot that is present. Since there is little original vegetation left on the road reserves, the major stretches having been cropped or sown to lucerne, and no other reserves exist there, a better conservation effort could be expected.

At this site we heard and saw Stubble Quail and Sky Larks.

Site 3. We proceeded from Cobra Killuc to Woorndoo Recreation Reserve for a break and then set out on the **Woorndoo-Streatham Rd** to an area of experimental work on the road reserve adjacent to the 'Bolac Plains' property that was undertaken by John Delpratt (University of Melbourne), David Franklin and other members of the Woorndoo Land Protection Group in 2013. They were attempting to rehabilitate the road reserve that had been previously cropped and native vegetation destroyed. A 1.25 ha area on the south side of the parking area had been scalped and sown to a wide range of local native grassland species. This had been very successful, with a plentiful representation of the rare Hoary Sunray (*Leucochrysum albicans*). Common Everlastings (*Chrysocephalum apiculatum*), Blue Bells (*Wahlenbergia* sp.) Wallaby Grass (*Rytidosperma* sp.) and other species were also well represented.

The north side was sown in 2019 but apparently not with the same degree of control. The main species there were Wallaby Grasses, with a sprinkling of Kangaroo Grass (*Themeda triandra*) and other species that were present on the southern area. Both areas had some Yorkshire Fog Grass and Cocksfoot present.



Native grassland restoration site, looking Sth on Woorndoo-Streatham Rd, adjacent to 'Bolac Plains'



Common Everlasting, Blue Bells and Hoary Sunray



Native grassland restoration site, looking Nth on Woorndoo-Streatham Rd, adjacent to 'Bolac Plains'

Site 4. Some members left at this stage and returned to Hamilton via Woorndoo and the Chatsworth Rd. Others continued to another site on the Woorndoo-Streatham Rd. This was a small area – about 150 m in length and 50 m wide – that was spared from cropping because it contained basalt rocks. We had driven past many kms of cropped or mown road reserve; little of the original vast native grassland remains.

This rocky Volcanic Plains remnant was adjacent to a stretch of reserve that had been planted with lucerne and had just been baled. While there was a 4 m wide break near the paddock fence, for this remnant an additional 4 m had recently (and illegally) been sprayed and slashed. This occurrence is all too common and there seems to be little hope for retaining such small remnants for posterity.

We did see two species in this remnant not seen earlier – Magenta Stork’s-bill (*Pelargonium rodneyanum*) and Black-anther Flax-lily (*Dianella revoluta*).



Looking Sth from the remnant grassland to baled lucerne – illegal sprayed and slashed extra 4 m strip at the fence



Looking Nth over the remnant grassland



Black-anther Flax-lily



Magenta Stork’s-bill



Common Everlasting

At this stage most members, except for Reto, Yvonne and Liz who looked at another site later, left for Hamilton. We had been lucky in having a fine although somewhat humid day.