

Site 63. Redcourt Reserve, Scoresby

A small Council bushland park.

Summary of significant features:

- State significance: a patch of the regionally-endangered vegetation type, Valley Heathy Forest, partly in quite good ecological condition with a rich diversity of plant species;
- Locally significant: viable populations of some locally-threatened plant species.



Boundaries

This 1.74-hectare site is outlined with blue dashes above, being all parts of the reserve other than the fenced kindergarten area, the associated car park and the small lot that provides a walkway to Taunton Crescent. The boundary is unchanged since the previous (2010) edition of this report.

Land use & tenure: Part of a Council reserve, managed for nature conservation and for public enjoyment.

Site description

This reserve lies on a gentle, south-facing slope in lightly undulating terrain, at an elevation of approximately 75 m. The soil is poorly draining, silty clay loam over clay subsoil, derived from weathering of the underlying Lower Devonian siltstone of the Humevale formation.

The naturalness of the native vegetation generally grades from highest in the middle to lowest around the perimeter firebreak but it is patchy and some locally-threatened plant species are present even near the perimeter (e.g. the Common Early Nancy *Wurmbea dioica* and Tadgell's Bluebell *Wahlenbergia multicaulis*). The centre

of the reserve provides a very good example of the distinctive features of the regionally-endangered vegetation type, Valley Heathy Forest, e.g. a grassy groundcover with abundant lilies as well as some heathy elements.

The site once had two intersecting vehicle tracks through it, as evidenced by aerial photographs from the 1970s and vestiges of the tracks that can be seen today. The routes of the tracks are marked on the aerial photograph above. At the time of the author's 2001 ecological survey of the reserve, the former tracks were covered with a mixture of introduced lawn species and hardy indigenous groundcover species. Remarkably, in 2024, the former northeast-southwest track has a fairly rich range of wild, indigenous plant species, including some that are locally-threatened, e.g. Trim Sun-orchid (*Thelymitra peniculata*) and Wiry Buttons (*Leptorhynchos tenuifolius*).

As with most other council reserves in this report, Redcourt Reserve has benefited from planting of indigenous species. In a few cases, it is hard to tell whether an indigenous species is present naturally, due to planting, due to descendants of planted plants, or any mixture of these.

Relationship to other land

The Scoresby Linear Reserve (Site 62) passes 150 m to the southwest of Redcourt Reserve and it appears to attract native birds and invertebrates. Some native birds and invertebrates no doubt travel between these sites but the combined habitat is still insufficient to meet the needs of species such as the rosellas and kookaburras seen there. It is expected that the required additional habitat is being met partly by native trees and shrubs in the neighbourhood. Native vegetation along Dandenong Creek – including Jells Park – may also contribute. However, there is no observational evidence of what fauna regularly crosses EastLink.

Bioregion: Gippsland Plain

Habitat types

Valley Heathy Forest (EVC 127, **Endangered**): Estimated to cover 1.3 ha, comprising 0.3 ha in good ecological condition (rating B), 0.7 ha in fair ecological condition (rating C) and 0.3 ha in poor ecological condition (rating D).

The species mentioned below do not include species only present due to planting.

Canopy trees: Dominated by *Eucalyptus cephalocarpa*, mixed with *E. radiata*, *E. melliodora* and *E. goniocalyx* in various proportions.

Sub-canopy trees: Dominated by *Exocarpos cupressiformis*; also with *Acacia mearnsii* and small numbers of *A. melanoxylon* and *Allocasuarina littoralis*.

Shrubs: The shrub layer is prickly and is dense in patches. The most abundant species by far is *Bursaria spinosa*, followed by *Acacia paradoxa*. *Cassinia aculeata*, *Coprosma quadrifida*, *Dillwynia cinerascens*, *Epacris impressa*, *Leptospermum continentale* and *Leptospermum scoparium* are also present. *Daviesia latifolia* was present in 2001 but it may now be represented solely by planted individuals.

Vines: The light twiner, *Billardiera mutabilis*, was abundant in 2001 but none were found in 2024.

Ferns: *Lindsaea linearis* was present in 2001 but was not found in 2024, perhaps due to the brevity of the 2024 survey. *Pteridium esculentum* is unexpectedly absent.

Groundcover: Densely grassy and dominated by *Poa morrisii* or (in spring) *Arthropodium strictum*. Lilies and geophytes (i.e. plants that die back to underground storage organs during the unfavourable season of the year) are particularly well represented.

Plant species

The following plant species were observed by the author in either of his botanical surveys of the reserve, on 10th September 2001 and 8th September 2024. Those seen only in 2001 are asterisked. Additional species would no doubt be detectable in summer. The column headed 'Risk' indicates the indigenous species' risk of dying out in Knox as follows: 'C'=Critically Endangered; 'E'=Endangered; 'V'=Vulnerable; and 'N'=Near threatened. In addition, *Allittia cardiocarpa* is rare throughout the Melbourne region.

Indigenous mosses and liverworts

Breutelia affinis, Common Breutelia
Campylopus introflexus, Heath Star Moss
Chiloscyphus semiteres, Green Worms

Indigenous mosses and liverworts

Hypnum cupressiforme, Common Hypnum
Rosulabryum billarderi, Common Thread-moss
Thuidopsis furfurosa, Golden Weft-moss

Risk Wild indigenous vascular species

- V *Acacia mearnsii*, Black Wattle
 V *Acacia melanoxylon*, Blackwood
Acacia paradoxa, Hedge Wattle
Acacia ?paradoxa × *stictophylla*, Cinnamon Wattle × Hedge Wattle hybrid*
 V *Acacia verticillata*, Prickly Moses*
 E *Acrotriche serrulata*, Honey-pots*
 C *Allittia cardiocarpa*, Swamp Daisy*
 V *Allocasuarina littoralis*, Black Sheoak
 C *Amyema pendula*, Drooping Mistletoe
Arthropodium strictum, Chocolate Lily
Austrostipa rudis subsp. *rudis*, Veined Spear-grass
Billardiera mutabilis, Common Apple-berry*
 N *Bossiaea prostrata*, Creeping Bossiaea
Burchardia umbellata, Milkmaids
Bursaria spinosa, Sweet Bursaria
Carex breviculmis, Short-stem Sedge
Cassinia aculeata, Common Cassinia
 V *Coprosma quadrifida*, Prickly Currant-bush (all now planted?)
Cotula australis, Common Cotula
Crassula decumbens, Spreading Crassula
 C *Daviesia latifolia*, Hop Bitter-pea (all now planted?)
Deyeuxia quadriseta, Reed Bent-grass
Dianella longifolia var. *longifolia*, Pale Flax-lily (all now planted?)
Dianella revoluta, Black-anther Flax-lily*
Dichondra repens, Kidney-weed
 V *Dillwynia cinerascens*, Grey Parrot-pea
 V *Drosera aberrans*, Scented Sundew
 V *Drosera auriculata*, Tall Sundew
 N *Drosera peltata* s.l., a sundew*
 C *Epacris impressa*, Common Heath
Epilobium hirtigerum, Hairy Willow-herb
Eragrostis brownii, Common Love-grass*
 E *Eucalyptus cephalocarpa*, Mealy Stringybark
 V *Eucalyptus goniocalyx*, Bundy
 E *Eucalyptus melliodora*, Yellow Box
 E *Eucalyptus radiata*, Narrow-leaved Peppermint
 V *Exocarpos cupressiformis*, Cherry Ballart
 C *Gastrodia sesamoides*, Cinnamon Bells*
Gonocarpus tetragynus, Common Raspwort
 E *Hydrocotyle foveolata*, Yellow Pennywort
 E *Hypericum gramineum*, Small St John's Wort
Juncus gregiflorus, Green Rush*
Juncus pallidus, Pale Rush
 E *Juncus subsecundus*, Finger Rush
 V *Lagenophora sublyrata*, Slender Bottle-daisy
Lepidosperma gunnii, Slender Sword-sedge
 C *Leptorhynchus tenuifolius*, Wiry Buttons
 C *Leptospermum continentale*, Prickly Tea-tree
Leptospermum scoparium, Manuka

Risk Wild indigenous vascular species

- V *Lindsaea linearis*, Screw Fern*
Lomandra filiformis subsp. *coriacea*, Wattle Mat-rush
Lomandra filiformis subsp. *filiformis*, Wattle Mat-rush
Lomandra longifolia subsp. *longifolia*, Spiny-headed Mat-rush (planted and ?wild)
 V *Luzula meridionalis*, Common Woodrush
Microlaena stipoides, Weeping Grass
 V *Microtis ?parviflora*, Slender Onion-orchid
 V *Opercularia ovata*, Broad-leaf Stinkweed
 V *Opercularia varia*, Variable Stinkweed*
Oxalis exilis/perennans, Wood-sorrel
 E *Pauridia vaginata*, Yellow Star*
 E *Platylobium obtusangulum*, Common Flat-pea*
Poa morrisii, Soft Tussock-grass
Poranthera microphylla, Small Poranthera
Rytidosperma ?fulvum, Leafy Wallaby-grass
Rytidosperma ?laeve, Smooth Wallaby-grass
 E *Rytidosperma pallidum*, Red-anther (or Silvertop) Wallaby-grass*
Rytidosperma penicillatum, Slender Wallaby-grass
Rytidosperma racemosum, Clustered Wallaby-grass
Schoenus apogon, Common Bog-rush
 V *Senecio glomeratus*, Annual Fireweed
Senecio hispidulus, Rough Fireweed
Senecio quadridentatus, Cotton Fireweed
 V *Solanum ?laciniatum*, Large Kangaroo Apple*
 V *Solenogyne dominii*, Smooth Solenogyne
 E *Stackhousia monogyna/subterranea*, Candles
 E *Thelymitra ?peniculata*, Trim Sun-orchid
Themeda triandra, Kangaroo Grass
Tricoryne elatior, Yellow Rush-lily
 V *Veronica gracilis*, Slender Speedwell
 E *Viola hederacea*, Ivy-leaf Violet
Wahlenbergia gracilis, Sprawling Bluebell
 C *Wahlenbergia multicaulis*, Tadgell's Bluebell
 E *Wurmbea dioica*, Common Early Nancy
 V *Xanthosia dissecta*, Cut-leaf Xanthosia*

Introduced species

- Acacia floribunda*, White Sallow-wattle*
Acacia longifolia subsp. *longifolia*, Sallow Wattle*
Agrostis capillaris, Brown-top Bent
Allium triquetrum, Angled Onion
Anthoxanthum odoratum, Sweet Vernal-grass
Briza maxima, Large Quaking-grass
Briza minor, Lesser Quaking-grass
Cassinia sifton, Sifton Bush
Centaureum erythraea, Common Centaury
Clematis decipiens, a small-leaved clematis
Cynodon dactylon, Couch*
Dactylis glomerata, Cocksfoot

Introduced species

Ehrharta erecta, Panic Veldt-grass
Ehrharta longiflora, Annual Veldt-grass
Fumaria sp., an unidentified fumitory
Galium aparine, Cleavers
Hakea salicifolia, Willow-leaf Hakea
Hypochaeris radicata, Cat's Ear
Oxalis incarnata, Pale Wood-sorrel
Paspalum dilatatum, Paspalum
Pittosporum undulatum, Sweet Pittosporum

Introduced species

Plantago lanceolata, Ribwort
Poa annua (non *P. infirma*), Annual Meadow-grass
Romulea rosea, Common Onion-grass
Rosa rubiginosa, Sweet Briar
Sonchus oleraceus, Sow-thistle
Stellaria media, Chickweed
Ulex europaeus, Gorse (Furze)
Viola odorata, Common Violet*
Vulpia bromoides, Squirrel-tail Fescue*

Notes concerning some of the locally-threatened plant species

Allittia cardiocarpa (Swamp Daisy): Two individuals were found in 2001.

Amyema pendula (Drooping Mistletoe): A single plant was seen in 2024. Numbers were not recorded in 2001 because the species was regarded as common, then.

Drosera peltata s.l. (a sundew): Approximately 100 were found in 2001.

Epacris impressa (Common Heath): Two plants were seen in 2024. Numbers were not recorded in 2001 because the species was regarded as common, then.

Gastrodia sesamoides (Cinnamon Bells): Several stems were reported by John Erwin of Knox City Council in 2001.

Hydrocotyle foveolata (Yellow Pennywort): Only a few individuals were seen in 2001 and 2024; numbers would vary greatly from year to year.

Hypoxis vaginata (Sheath Star): Six individuals were flowering among the *Drosera peltata* s.l. in 2001.

Leptorhynchus tenuifolius (Wiry Buttons): A cluster of at least eight individuals was found in 2024. Numbers were not recorded in 2001 because the species was regarded as common, then.

Leptospermum continentale (Prickly Tea-tree): A single plant was seen in 2024. Numbers were not recorded in 2001 because the species was regarded as common, then.

Luzula meridionalis (Common Woodrush): Fairly abundant in the periodically mown edges of the bushland.

Microtis ?parviflora (Slender Onion-orchid): Scattered, particularly in the periodically mown edges of the bushland.

Wahlenbergia multicaulis (Tadgell's Bluebell): A colony of at least 18 was found in 2024, not having been seen in the previous (2001) botanical survey. The only other population known to remain in Knox is in Boronia.

Wurmbea dioica subsp. *dioica* (Common Early Nancy): 16 were seen flowering in 2001 but only one in 2024.

Fauna of special significance

None detected.

Fauna habitat features

- The combination of dense shrubs, dense groundcover, logs and fallen branches improve the habitat for reptiles and invertebrates;
- The high density of shrubs significantly improves the habitat for native insects and small birds. The prickliness of many of the shrubs helps protect birds from cats;
- Some of the larger eucalypts have hollows that may be usable for habitation by birds, bats, possums or invertebrates;
- The relative isolation of the site's native vegetation is to some degree offset by the diversity of habitat (dense to open, damp to dry), which is beneficial to some native fauna.

Significance ratings

The following is an assessment of the site's biological significance against the Department of Energy, Environment & Climate Action's standard criteria (Amos 2004).

Endangered Vegetation Types

The majority of the reserve's native vegetation west of the path from Borg Cres to the kindergarten meets the definition of a 'remnant patch' adopted by the standard criteria, i.e. a continuous area of at least 0.25 ha in which the cover of native understorey is at least 10% throughout. The vegetation is Valley Heathy Forest – a regionally-endangered EVC. According to 'Victoria's Native Vegetation Management – A Framework for Action' (NRE 2002a), any remnant patch of a regionally-endangered EVC has a conservation significance rating of either High or Very High, depending on the ecological condition. Criterion 3.2.3 of Amos (2004) translates such a situation to **State** significance.

Locally-threatened plant species

Some of the locally-threatened plant species listed above have viable populations, thereby meeting criterion 3.1.5 for **Local** significance. Notably, this includes Tadgell's Bluebell (*Wahlenbergia multicaulis*).

Threats

- Human-induced climate change, which is predicted to cause more severe droughts, heatwaves and storms, as well as substantially lower rainfall (particularly in winter);
- Decline of tree health, partly due to the abovementioned droughts and storms;
- Displacement of indigenous flora and fauna by environmental weeds, exacerbated by debilitation of the native vegetation by the impacts of climate change. The most prevalent environmental weeds are Pale Wood-sorrel (*Oxalis incarnata*) and (beneath Cherry Ballarts) the veldt-grasses *Ehrharta erecta* and *E. longiflora*. Large Quaking-grass (*Briza maxima*) and Angled Onion (*Allium triquetrum*) are also seasonally abundant. Gorse (*Ulex europaea*) and the small-leaved clematis, *Clematis decipiens*, are scarce but could become serious if not kept in check;
- Recurrence of vegetation damage by construction of BMX tracks;
- Continuing loss or decline of plant species that have such small populations that they are vulnerable to inbreeding, poor reproductive success or chance events such as being struck by a falling tree limb.

Strategic planning

- The previous (2010) edition of this report led to this site being covered by Schedule 2 of the Environmental Significance Overlay (ESO2), based on the State significance, the locally rare and threatened plants and the endangered EVC. Since 2010, there has been no material change affecting the original basis for applying ESO2, so no recommendation arises for amending ESO2;
- The site is zoned Public Park and Recreation Zone (PPRZ) except for the area west of the kindergarten, which is zoned Public Use Zone – Local Government (PUZ6).

Information sources used in this assessment

- A list of grasses seen incidentally by Dr Lorimer during a brief visit to the reserve on 2/3/00;
- Ecological surveys by Dr Lorimer on 10/9/01 and 3/10/01 for the report, 'Fire in Knox Bushland Reserves 2001' by Lorimer (2001). The work included:
 - Compilation of a list of indigenous and introduced plants;
 - Detailed mapping of rare species populations and the ecological condition of the vegetation;
 - A description of the vegetation's structural and floristic composition;
 - Incidental fauna observations;
 - Checks for fauna habitat, ecological threats and management issues; and
 - Development of a strategy for ecological burning of the reserve, in consultation with Council and the Scoresby Fire Brigade;
- A botanical survey of the site by Dr Lorimer on 8th September 2024, compiling a list of wild indigenous and introduced plant species and checking for changes in features relevant to this report compared with pre-existing information;
- Records of flora and fauna observations stored in Knox City Council's biodiversity database;
- A search for records of flora and fauna observations stored in the Atlas of Living Australia. Note that all the ALA's non-trivial fauna records mapped as coming from this site were contributed by Birds Australia, who labelled them 'Scoresby Linear Reserve' but wrongly mapped them in Redcourt Reserve;

- Aerial and satellite imagery from between 1946 and 2025;
- The Victorian Government's 'NatureKit' website;
- Maps of geology, topography and strategic planning information produced by agencies of the Victorian Government.