

Native vegetation information

EVC nomenclature

Information sheet No.5

GUIDELINES FOR ECOLOGICAL VEGETATION CLASS (EVC) NOMENCLATURE

Introduction

Each EVC is given a common name that describes its key elements in order to convey a useful impression of the vegetation. Since one of the key purposes of classifying vegetation is to promote awareness and understanding by non-specialists, the following approach is used:

- names express the simplest, most readily understood concept of the class, in common language;
- names generally avoid including a specific taxa, since this often creates the expectation that wherever the taxa occurs, the ecological vegetation class also occurs (and vice versa); and
- names routinely include broad environmental or structural descriptors which, although necessarily imprecise, better enable non-specialists to envisage the vegetation type.

Structure of an EVC Name

The name of an Ecological Vegetation Class (EVC) consists of a maximum of three parts, which describes the structure of the EVC.

Example: Plains Grassy Woodland (A/B/C)

- where "A" is an adjective specific to the vegetation described;
- where "B" is an adjective referring to a general aspect of the vegetation;
- where "C" is a noun that refers to the usual structure of the vegetation ("C" is always the last name in the EVC label)

If the EVC can be adequately described in less than three words then this should occur:

- Heathy Woodland (A/C)
- Wet Forest (B/C)

Superfluous or non-discriminatory words should not be used in order to maintain the simplest nomenclature:

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GLOSSARY OF TERMS USED IN ECOLOGICAL VEGETATION CLASS NOMENCLATURE

The following is a definition of all the "A/B" Adjectives/nouns used in the naming of EVCs.

Broad Environmental Attributes ("A/B" Adjectives/nouns)

Altitude

General altitudinal range in which the vegetation occurs. These are guides only, in exceptional circumstances an altitudinal delimiter outside of the limits listed below may be justified (eg. 'alpine' at only 1400m due to cold air drainage).

Alpine - above 1500m elevation

Sub-alpine - between 1200-1500m elevation

Montane - between 900-1200m elevation

Foothill - between 300-900m elevation

Lowland - between 0-300m elevation

Example: **Montane** Dry Woodland

Climatic

(General climatic zones in which the vegetation occurs).

Alpine

Climatic zones generally associated with elevations in excess of 1500m in Victoria that are usually covered in snow during late autumn, winter and early spring where temperatures frequently fall below 0 ° C for weeks at a time and fogs are common.

Example: **Alpine** Short Herbland

Sub-alpine

Climatic zones generally associated with elevations in excess of 1200m in Victoria that are usually covered in snow during late autumn, winter and early spring where temperatures frequently fall below 0 ° C for weeks at a time and fogs are common.

Example: **Sub-alpine** Damp Heathland

Cool

Cool environments are those that may experience snow on an occasional but usually annual basis or where the mean maximum day time temperature is below 10 ° C during winter.

Example: **Cool** Temperate Rainforest

Frost Hollow

A topographic depression or cold-air drainage line that produces alpine-like conditions (such as consistently low temperatures and fogs) at elevations lower than 1200m for extended periods over winter and occasionally in summer.

Maritime

Coastal or sub-coastal regions (usually within 60-80 km of the coast) that have a climate which is strongly influenced by their proximity to the ocean. This proximity increases winter minimum temperatures and reduces summer maximum temperatures.

Semi-arid

Semi-arid environments are characterised by consistently high temperatures (mean monthly maximums above 30°C) in the hottest months and rainfall of between 200 and 400 mm in southern Australia.

Example: **Semi-arid** Woodland

Warm

In climatic terms warm environments are those that are generally free of snow except on rare occasions and the mean maximum daytime temperature does not frequently lie below 10 ° C during winter.

Example: **Warm** Temperate Rainforest

Temperate

The zone of middle latitudes between the cold polar regions and the tropics (Meagher 1991) that produces an equitable environment where snowfalls are rare and daytime temperatures do not fall below 0 ° C for weeks at a time or that altitudinal range that maintains such a climatic regime.

Example: Cool **Temperate** Rainforest

Temporal

Ephemeral

This term is used where some significant environmental or vegetation feature is transient in time, ie. of short and unpredictable duration, such as annuals in semi-arid herblands, or water in some wetlands.

Example: Riverine **Ephemeral** Wetland

Intermittent

Situations or events occurring at intervals that are neither 'recurrent' nor 'alternating'.

Example: **Intermittent** Swampy Woodland

Permanent

This term is used where some significant environmental or vegetation feature is permanent in the landscape, such as water in some wetlands.

Seasonal

Of regular and predictable occurrence, according to season.

Example; **Seasonally** Inundated Shrubby Woodland

Semi-permanent

Lasting or intended to last for a long time, but unreliably so.

Geological

In general these terms are used to describe vegetation only when there is a clear and faithful relationship between the community described and the geology upon which it grows.

Basaltic

Chemically, basalts are mafic rocks (<52% quartz, plagioclases making up most of the balance with the rest of the composition comprised of the ferro-magnesium minerals pyroxene, particularly augite) (MacDonald 1990). As a consequence, this geology produces very fertile clay loams of neutral to alkaline pH that are prone to self-mulching over the summer months. The landforms are characteristically flat plains or the remains of these structures that are stranded as caps on

ridges, hills or plateaus. The plains may be peppered with old volcanic cones.

The vegetation of the better-drained landforms is often markedly different to the surrounding plains. The vegetation is usually grassland in areas where the mean annual rainfall is <600mm or grassy woodlands where mean annual rainfall is up to 800mm or beyond.

Example: **Basalt** Shrubby Woodland

Granitic

Granites have an arenaceous or acid composition (>65% quartz) and include the feldspar granites and adamellite. The next most common minerals are feldspars (30%). Mafic minerals are uncommon (occasionally biotite) or absent (MacDonald 1990). Granitic geologies generally give rise to low fertility soils that are low in clay and high in sand content. The landform is generally steep convex rolling hills and rocky peaks with granite tors.

The high silica content of this geology can mean that the landforms are quite resistant to erosion. The vegetation on this rock type is dependent on rainfall and landform. In many cases, the community is shrubby or heathy where soils are well-developed and well-watered during a significant period of the year. Shrublands with many annuals or perennial geophytes are characteristically present in rocky sites where water retention is relatively low and soils are poorly developed.

Example: **Granitic** Hills Woodland

Granodioritic

An intrusive igneous rock type of intermediate composition (52-65% quartz), (48-35% feldspars particularly orthoclase) with the balance of its make-up being ferro-magnesium minerals such as biotite and hornblende (MacDonald 1990). Because of the abundance of the clay producing minerals (feldspars) and the presence of ferro-magnesium minerals this geology produces fertile soils that are well-drained sandy clay loams which are usually red and neutral to acid. The red colour indicates the presence of ferro-magnesium oxides that are important plant nutrients.

The landform system generated by this geology is characterised by gentle concave to

slightly convex rounded hills This geology generally supports grasslands and grassy woodlands in areas of <800mm rainfall, whilst in areas of <400mm rainfall grasses become sparse and are replaced by annual herbs and perennial geophytes.

Limestone

A sedimentary rock type derived from organically produced calcium carbonate (Bell and Wright 1985) with associated clay minerals that precipitated in the depositional environment (MacDonald 1990). The weathered geology develops a well-drained fertile and alkaline soil called a terra rossa under low to moderate mean annual rainfall (<800mm). The landform system generated by this geology is called 'karst', which is characterised by steep convex rounded hills, extensive cave systems including collapsed caves (dolines), rock outcrops and sometimes sub-surface streams. Where the mean annual rainfall is < 800 mm this geology generally supports grasslands and grassy woodlands.

Example: **Limestone** Box Forest

Mudstones, shales, siltstones (sedimentary) and slates, schists and gneisses (metamorphic)

Mudstones, shales and siltstones are sedimentary rocks that are formed from the accumulation of clays. Subsequently, some of these may have undergone subsequent alteration by regional or contact metamorphism to form schists and gneisses or slates. The presence of clay minerals leads to the formation of relatively fertile soils when these geologies are weathered. Where the mean annual rainfall is <800mm, the predominant communities include a field layer dominated by grasses and herbs.

Rhyolitic

This geology is acid to felsic (52-65% quartz), (48-35% feldspars particularly the alkaline feldspar sanidine), but lacks the mafic (ferromagnesium) minerals of more fertile geologies (MacDonald 1990) and therefore weathers into infertile droughty soils and steep often extensively cliffed land forms. The vegetation is almost invariably shrubby. Occasionally, where mafic mineral contents are higher (viz rhyodacites), grassy communities may develop.

Geomorphological

This epithet refers to the usual landform on which the vegetation grows.

Alluvial Terraces

An old flood plain formed by the deposition of silt (alluvium) that may lie above the present flood plain of a stream because the stream has lowered its bed by erosion over many years. (Meagher 1991).

Example: **Alluvial Terraces** Herb-rich Woodland

Berm

The zone above the water line at the shore of a water body, marked by an accumulation of sand, stone, or gravel that has been deposited by the tide or waves.

Example: **Berm** Grassy Shrubland

Billabong

Part of a watercourse that has been isolated from the stream but which still contains water. Billabongs are usually only full during flooding, and are normally shallow (Meagher 1991).

Example: **Billabong** Wetland Aggregate

Blocked Coastal Stream

A coastal stream where the entrance becomes plugged by sand during low flow periods.

Example: **Blocked Coastal Stream** Swamp

Bog or Mossbed

A type of wetland that accumulates appreciable peat deposits, often with plants specially adapted to these conditions. Mossbeds depend primarily on local precipitation for their water source, and are usually acidic and rich in plant residue, often with a conspicuous mat of mosses such as Sphagnum species. Mossbeds may form through the degeneration of lakes or streams.

Example: Montane **Bog**

Cinder Cone

A conical hill formed by fragments of solidified lava thrown out during a volcanic explosion (Mayhew et al 1992).

Example: **Cinder Cone** Woodland

Claypan

A compacted layer in the subsoil that has a notably higher clay content than the soil above. The clay reduces the vertical water movement through the soil profile and restricts the growth of roots downwards.

Example: **Claypan** Ephemeral Wetland

Coast\Coastal

The land bordering an ocean or the inlet of an ocean (Meagher 1991).

Example: **Coastal** Dune Scrub

Creekline

A small stream of water, especially one joining others to form a river. These may be ephemeral or permanent (Meagher 1991).

Example: **Creekline** Grassy Woodland

Depression

A large shallow area of land, lower than the surrounding land surface, especially where the shallow area is below sea level (Meagher 1991).

Drainage-line

Small pathways of water movement upstream of stream channels, typically carrying water only during or immediately after rain (Meagher 1991).

Example: **Drainage-line** Woodland

Dune

A hill of sand formed by the erosion and transportation of soil or rocks. The presence of a dune suggests instability in the surface soil, which allows the transport and deposition of sand until conditions are suitable for plants to become established and bind the dune (Meagher 1991).

Example: **Dune** Soak Woodland

Escarpment

A steep, almost vertical line of cliffs formed by faulting or erosion (Meagher 1991).

Example: **Escarpment** Shrubland

Estuarine

A partially enclosed body of water at the mouth of a river, that is influenced by tides, and where freshwater mixes with salt water (Meagher 1991).

Example: **Estuarine** Scrub

Fen

A sedge-land or poorly-drained area lying below the surrounding land, often supporting vegetation dominated by sedges (Cyperaceae) (Meagher 1991). Fens differ from bogs in that Sphagnum species and similar mound-forming mosses are absent. In the Victorian context this term traditionally relates to vegetation at alpine, sub-alpine or montane (affected by cold-air drainage) elevations (Meagher 1991).

Example: **Alpine Fen**

Flats

Any areas with slopes less than 3 in 100 (Meagher 1991).

Example: **Estuarine Flats** Grassland

Floodplain

An alluvial plain in which streams occasionally overflow their banks, causing active erosion and deposition across the plain (Meagher 1991).

Example: **Floodplain** Grassy Wetland

Floodway

The channel of a watercourse and that inner portion of the floodplain where flood depths and velocities are generally higher than those experienced in the flood fringe.

Example: **Disused Floodway** Shrubby Herbland

Floodway pond

A small, shallow natural body of standing fresh water filling a surface depression within a floodway.

Example: **Floodway Pond** Herbland

Gallery

A covered corridor (of vegetation) - a relatively thin, diffuse canopy of one or two species along flood-prone, watercourses protected from the effects of fire.

Example: **Gallery** Rainforest

Gilgai

Micro-relief associated with the shrinkage or swelling of clayey soils, leading to a more or less regular pattern of small hillocks and depressions (Meagher 1991).

Example: **Herb-rich Gilgai** Wetland

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Gypseous plains (copi)

Plains with gypseous soils (ie. soils containing hydrated calcium sulphate, Meagher 1991).

Gully

A small, natural, narrow gap between adjacent hills formed by erosion by an enclosed stream (Meagher 1991).

Example: **Gully** Woodland

Hillcrest

A gently sloping crest, usually without a prominent peak, and from which water drains in many directions. (Meagher 1991).

Example: **Hillcrest** Herb-rich Woodland

Hill

A natural elevation of the land surface, rising from 300 to 500 metres in height above the surrounding lowlands, usually of restricted summit area and having a well-defined outline.

Example: **Hills** Herb-rich Woodland

Headland

A rocky projection on a coastline above high tide level.

Example: Coastal **Headland** Scrub

Inland

Having no access to the open sea or remote from it.

Example: **Inland** Saltmarsh

Lake

A large body of water completely enclosed by land, except for a narrow inlet or outlet (Meagher 1991).

Example: Brackish **Lake** Aggregate

Lake-bed

The bottom of a lake.

Brackish **Lake Bed** Herbland

Lagoon

A shallow coastal lake, separated from the sea either partly or completely by a strip of land, or by a reef (Meagher 1991).

Example: Coastal **Lagoon** Wetland

Lava plain

A plain formed by the spread of lava flow across a wide area (Meagher 1991).

Example: **Lava Plain** Ephemeral Wetland

Low Rises

Generally low areas characterised by tops not exceeding 30m in relief.

Example: **Low Rises** Woodland

Lunette

A low dune that is formed by the wind into the shape of a crescent moon, especially on the downwind edge of a playa (Meagher 1991).

Example: **Lunette** Woodland

Marsh

An area of damp, boggy land, either regularly or permanently under water. These are usually found on flat, poorly-drained sites with relatively impervious soils such as clays or peats (Meagher 1991) or the sites are barely or not above the regional ground water table.

Example: Tall **Marsh**

Meadow

Closed herbaceous vegetation, commonly in stands of rather limited extent, the term not usually applied to extensive grasslands.

Example: Saline Aquatic **Meadow**

Perched

A localized unconfined aquifer where the ground water body is above the general surrounding regional water table and is controlled by structure or stratigraphy.

Example. **Perched** Boggy Shrubland

Plain

A large flat or gently undulating area of land, usually with a relief of less than 9m (Meagher 1991). In the typological context, the elevation range could approach 100m over wide areas. Plains are usually found at low elevations, and are often formed by the deposition of alluvium (Meagher 1991). These may be formed by a variety of geomorphological processes (Meagher 1991):

EVC nomenclature

- (i) Deposition of alluvium e.g. Gippsland Plains,
- (ii) Coastline retreat e.g. Sunset Country, or
- (iii) a combination of both (Meagher 1991) or
- (iv) by the out flow of highly fluid lavas such as some basalts, e.g. Victoria's Western Volcanic Plains.

Example: **Plains** Grassland

Playa

The sandy, salty or mud-caked floor of an internally-draining dry area basin, usually occupied by a shallow lake after winter or heavy rains.

Ridge

A long narrow peak or crest in a mountain range or line of hills. Ridges often join peaks, and may themselves consist of a number of small peaks (Meagher 1991).

Example: Sand **Ridge** Woodland

Riparian

Areas intimately associated with a river or creek that require the presence of free water at some time during the year either through floods or average river flows.

Example: **Riparian** Forest.

Rise

An increased elevation in a generally flat area, characterised by slopes not exceeding 30m in relief (Meagher 1991).

Example: Stony **Rises** Woodland

Riverine

Relating to a river (Meagher 1991).

Example: **Riverine** Grassy Woodland

Rocky outcrop

Any extensive area of rock which usually consists of rocks, boulders and cliffs of erosion resistant geology.

Example: **Rocky Outcrop** Shrubland

Scoria cone

A volcanic cone composed of lava containing many hollows caused by the escape of gases during its cooling period (Meagher 1991).

Example: **Scoria Cone** Woodland

Scree-slope

A slope produced by the gravitational erosion of a cliff or other steep slope (Meagher 1991). These are often poorly consolidated and very free-draining, with little soil development

Example: **Scree-slope** Woodland

Shell beach

An accumulation of shells found at the landward margin of a sea or lake.

Example: **Shell Beach** Herbland

Sink-hole

A depression in the ground caused by the dissolution of the rock below (usually limestone or a similarly soluble rock). Sinkholes often indicate the presence of underground passages and caves (Meagher 1991).

Example: **Sink-hole** Wetland

Slope

An area of land with an inclination greater than one degree that is neither a crest nor a depression (Meagher 1991).

Example: Valley **Slopes** Dry Forest

Snow patch

Area of persistent summer snow on a protected aspect.

Example: **Snowpatch** Grassland

Soak

An unmodified depression in sand or soil where rainwater or soil water collect.

Example: Dune **Soak** Woodland

Spray zone

Coastal areas subject to direct impact of salt spray generated by strong onshore winds.

Example: **Spray-zone** Coastal Shrubland

Spring

A natural underground flow of water that emerges at the surface. A spring is commonly formed when water is trapped above a non-porous layer of rock, which slopes away to a point where it emerges at the surface (Meagher 1991).

Example: **Spring** Soak Woodland

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Stony knoll

A small, rounded, stony hill especially one below the summit on an ascending ridge of a mountain. Often associated with resistant rock.

Example: **Stony Knoll** Shrubland

Stony rises

Irregular ridges and depressions formed by recent lava flows, often less than 6000 years old in southern Australia. They are closely associated with scoria cones, and have no defined drainage system (Meagher 1991).

Example: **Stony Rises** Pond Aggregate

Stream

A natural watercourse of any size (Meagher 1991).

Example: Sandy **Stream** Woodland

Stream bank

The higher elevation ground bordering a stream channel.

Example: **Stream Bank** Shrubland

Swale

A depression (often linear) formed by wind erosion, or by the build-up of ridges either side of an area of land (Meagher 1991) and usually associated with dunes or dune fields.

Example: Wet **Swale** Herbland

Swamp

A low wet area that is permanently covered by water or is waterlogged and is usually covered by shrubs or trees (Meagher 1991) or sedges.

Example: **Swamp** Scrub

Tableland

A large plateau standing above a plain or a body of water that is surrounded by steep slopes or cliffs (Meagher 1991).

Example: **Tableland** Damp Forest

Valley

A long, narrow area of land between hills or mountains, usually with the bottom sloping consistently in one direction (Meagher 1991).

Example: **Valley** Grassy Forest

Verge

A region marking an obvious ecological boundary such as a treeline at the edge of a lake.

Example: Wet **Verge** Sedgeland

Wetland

A low-lying area sometimes inundated or permanently covered by water (Meagher 1991).

Example: Aquatic Grassy **Wetland**

Edaphic (moisture)

Damp

Pertaining to vegetation types where moisture is usually not a limiting factor. Nevertheless, water availability may be limiting during periods of drought and hence the plants that grow in that environment have some adaptations to water stress.

Example: **Damp** Forest

Dry

Pertaining to vegetation types where moisture is usually a limiting factor and drought conditions occur on a regular seasonal basis. Hence, the plants that grow in that environment have adaptations to water stress.

Example: Shrubby **Dry** Forest

Wet

Pertaining to vegetation types where moisture is rarely a limiting factor. The plants that grow in these environments have little drought tolerance.

Example: **Wet** Forest

Edaphic (soils)

Clay

A fine-grained material consisting mainly of hydrated aluminium silicates that occurs naturally in soil and sedimentary rock. Soil texture: smooth plastic bolus (bolus = small handful of soil that is moistened and kneaded into a ball and pressed out between thumb and forefinger.) Clay content 50% or more. Drainage varies due to soil structure.

Laterite

A porous, rust-coloured clay containing high concentrations of oxides of iron and aluminium (Meagher 1991).

Loams

A friable, rich soil consisting of a mixture of sand and clay and decaying organic materials. Bolus (small handful of soil that is moistened and kneaded into a ball and pressed out between thumb and forefinger) coherent and rather spongy; smooth feel when manipulated but with no obvious sandiness or 'silkeness', may be somewhat greasy to the touch if much organic material present; will form ribbon of about 25 mm. Clay content about 25%.

Peat

Soils which are characterised by very high levels of organic matter and developed in anaerobic environments that result from seasonal waterlogging after heavy rainfall or inundation.

Sands

Light textured soils that are consistently sandy (large grain size) thruout the profile, altho' the deeper strata may be cemented by organic matter to form 'coffee rock'. A restrictive layer may occur at depth, but drainage is generally rapid. Texture: Coherence nil to very slight, cannot be moulded; sand grains of medium size; single sand grains adhere to fingers. Commonly less than 5% clay.

Silt

Soils characterised by high levels of silt (medium-grained mineral content resulting from deposition from water) that are usually fertile, although seasonal waterlogging may occur after heavy rainfall.

Salinity

Brackish

Slightly saline, with a salt concentration between that of fresh water (roughly 1500 EC [Electrical Conductivity] units or below) and sea water (around 60000 EC). The specific salinity at a site may vary. This environment forms an intermediate zone between saline estuarine and freshwater areas and can experience the extremes of both.

Example: **Brackish** Aquatic Herbland

Freshwater

The specific salinity can vary but sites are considered freshwater when the salinity is consistently below 1500 EC.

Example: **Freshwater** Lignum Shrubland

Saline

The specific salinity can vary but sites are considered saline when EC readings are around 60000 or higher or when salt crystals occur at the surface or within the soil profile. Soils when exposed characteristically develop visible salt deposits. Ground water and surface water tastes distinctly salty.

Example: **Saline** Aquatic Meadow

Sub-saline

Moderately saline or salty.

Example: Seasonally Inundated **Sub-saline** Herbland

Aquatic vegetation

Emergent

Vegetation emerges above a body of water but is rooted in the soil below the water surface.

Floating

Vegetation resting on the surface of the water body.

Example: Dwarf **Floating** Aquatic Herbland

Submerged

Vegetation that is mostly covered with water.

Example: **Submerged** Aquatic Herbland

EVC nomenclature

Structural (sub-ordinate to the canopy)

Grassy

Vegetation in which the field layer is dominated by grasses or grass-like herbs.

Example: **Grassy** Woodland

Heathy

Vegetation dominated by sclerophyllous shrubs, usually no more than 2m tall (many species have small, prickly foliage).

Representative plant genera and families include *Acrotriche*, *Astroloma*, *Banksia*, *Boronia*, *Brachyloma*, *Dillwynia*, *Hakea*, *Hibbertia*, *Leptospermum* and Restionaceae.

Example: **Heathy** Woodland

Herb-rich

Vegetation in which the field layer is dominated by herbs (non-woody plants).

Example: **Herb-rich** Foothill Forest

Rushy

Vegetation in which the field layer is dominated by rush species (Juncaceae, Restionaceae).

Example: **Rushy** Riverine Swamp

Sedgy/sedge-rich

Vegetation in which the field layer contains a high proportion (number of species and/or cover) of sedges (Cyperaceae).

Example: **Sedgy** Riparian Woodland

Shrubby

Vegetation in which either the sub-tree layer is dominated by shrubs or the canopy consists largely of shrubs (ie. low-growing plants, generally less than 8m tall, and often with many woody stems or a high stem density).

Example: **Shrubby** Dry Forest

Tussocky

Vegetation in which the field layer is dominated by herbs with a tussock (densely-tufted) habit.

Example: **Tussocky** Riparian Forest

Vine-rich

Vegetation in which the sub-tree layers include a high proportion of lianes.

Example: Coastal **Vine-rich** Forest

Non-specific environmental attributes ("A/B" Adjectives/pronouns)

Alkaline

Soil or solution with a pH greater than 7.

Example: Coastal **Alkaline** Scrub

Aquatic

Growing or living in or frequenting water.

Example: **Aquatic** Herbland

Bird colony

A large group of birds nesting in close proximity and finding their food outside the breeding area.

Example: **Bird Colony** Shrubland

Chenopod

A member of the (former) plant family Chenopodiaceae. Characteristically, these are adapted to tolerate saline environments and are able to survive with very little moisture by having special adaptations for preserving water such as succulent leaves, thick bark or waxy stems (Meagher 1991).

Example: **Chenopod** Shrubland

Flood

A rising and overflowing of a body of water especially onto normally dry land.

Halophytic

A plant that is adapted to tolerate a saline environment.

Example: Cane-grass-Lignum **Halophytic** Herbland

Lowan sand

A very pale siliceous sand of north-western Victoria formed into a complex array of jumbled irregular and parabolic dunes with intervening sand sheets and plains.

Example: **Lowan Sands** Mallee

Moira Plain

A grassy plain adjacent to the Murray River in the Barmah Forest, northern Vic and named after Spiny Mud-grass *Pseudoraphis spinescens* (formerly termed Moira Grass).

Parilla sand

A composite strandplain* deposit of shallow marine and coastal sands forming prominent ridges with intervening swales extending as a series of broad, parallel arcs from south-western NSW across north-western Victoria and into south-eastern South Australia (DSE et al 2003).

Example: **Parilla** Mallee

Raak Plain

Saline groundwater discharge area in North-West Victoria derived from localised tectonic subsidence associated with bedrock faults.

Savannah

A landscape dominated by a two-storeyed vegetation structure, generally with a widely-spaced tree canopy and an herbaceous field layer dominated by forbs and grasses.

Example: Plains **Savannah**

Succulent

A fleshy plant that stores excess water in its tissues so that it is able to survive in hot, dry conditions (Meagher 1991).

Example: Bird Colony **Succulent** Herbland

Woorinen sand

Calcareous material of north-western Victoria in the form of broad undulating sandy plains often associated with linear, east-west aligned, low sand dunes with intervening heavier textured swales developed from Cainozoic alluvial, aeolian and swampy deposits.

Example: **Woorinen** Sands Mallee

*A series of dunes, typically associated with and parallel to a beach, and sometimes containing one or more small creeks or lakes.

Structure/lifeform ("C" Nouns)

Structure-lifeform (dominant canopy in a broad sense). Note that the uppermost stratum is not always dominant, eg. scattered trees within a dense heathland do not determine that vegetation as open-woodland - the dominant layer (ie. that with most influence on community processes) is still the heathy shrubs and hence it is a heathland)

Forest

Vegetation with trees that usually have a long single bole and are closely spaced. This structural type is generally taller than woodland types (>30m). The lower strata may be ferny, shrubby or grassy but are rarely heathy.

Example: Riparian **Forest**

Grassland

The dominant stratum is the field layer, characterized by grasses and other erect herbs. Occasional trees or shrubs may occur, but do not significantly affect either the community-wide fire behaviour or the nutrient cycling.

Example: Plains **Grassland**

Heathland

This vegetation type consists of a low (generally < 2m tall) canopy of shrubs and sometimes grass trees. The density can be variable but the shrub layer is characterised by woody species with strongly sclerophyllous leaves (long-lived tough foliage with high fibre content and low rates of decomposition). The subordinate strata are often rich in sclerophyllous sedges or rushes and grasses are usually rare.

Example: Sand **Heathland**

Herbland

Herblands are dominated by non-woody plants. This term is usually reserved for vegetation dominated by dicotyledonous plants ('broad-leaved' herbs), not graminoids, rushes nor sedges.

Example: Wet Swale **Herbland**

Mallee

Shrubland (< 8m tall) dominated by multi-stemmed, ligno-tuberous eucalypts.

Example: Chenopod **Mallee**

Mixed forest

A forest in which there is a more or less equal admixture of trees from other nearby forest types (e.g. the EVC Cool Temperate Mixed Forest, where there is a combination of eucalypt and non-eucalypt dominants).

Example: Cool Temperate **Mixed Forest**

Rainforest

In Victoria 'rainforest' is the common term for what Specht calls 'closed-forest'. Rainforest is dominated by trees with a closed canopy (ie. only very small gaps between the canopies of dense foliage - unlike the open foliage and distinct canopy gaps of eucalypt forests). These forests are fire-sensitive - even a single fire may lead to their local extinction or grossly change their composition and structure. Non-vascular epiphytes e.g. (mosses, liverworts) are usually common, ferns are usually common (except in dry types) and vines are usually present and common, except in high altitude rainforests.

Example: Dry **Rainforest**

Reedbed

Wetlands dominated by stands of reeds, notably *Phragmites australis* and *Typha* species.

Example: Estuarine **Reedbed**

Samphire

Low, open-shrubland of saline habitats, dominated by very widely-spaced succulent, non-flammable shrubs.

Example: **Samphire** Shrubland

Scrub

Scrubs have closed canopies (ie. densely foliated and closely-spaced). They can be distinguished from rainforests by their lower canopy heights (< 6m tall) and the lower presence of lianes and epiphytes.

Example: Riparian **Scrub**

Sedgeland

Sedgelands are herbaceous communities dominated by more or less dense swards of sedges (Cyperaceae).

Example: Gahnia **Sedgeland**

Shrubland

Shrublands are generally treeless or nearly so, less than 4m in height and have open canopies (wide gaps between the dominant shrubs). These often develop in rocky situations or on very dry environments.

Example: Lignum **Shrubland**

Thicket

Thickets are a variant of scrubs. They have the typical closed canopy of scrubs but also support a dense lower stratum of scrambling lianes, ferns or sedges, making access very difficult.

Example: Riparian **Thicket**

Tussock

Tussock lifeforms are characteristic of some grasses and sedges. Occasionally this life form dominates e.g. in tussock grasslands.

Example: Coastal **Tussock** Grassland

Woodland

A vegetation community dominated by widely-spaced, spreading trees, often with short boles and a spreading habit. This structural type is often shorter than forest types (<30m). The lower vegetation strata may be shrubby, grassy or heathy, but are rarely dominated by ferns.

Example: Damp Sands Herb-rich **Woodland**

Generic or common names

These descriptors represent structural or visual dominance by one or more species of the nominated plant genera. Colloquial terms can be employed especially where this facilitates local appreciation and understanding of the vegetation being described. A list of the EVCs is provided where generic or common names have been used in naming EVCs, together with scientific names

Banksia

EVC: **Banksia** Woodland – dominated by Saw Banksia *Banksia serrata*.

Black Box

EVC: **Black Box** Lignum Woodland, - (dominated at least in part by Black Box *Eucalyptus largiflorens*).

Blackthorn

EVC: **Blackthorn** Scrub – dominated by Red Wattle *Acacia silvestris* (commonly known as Blackthorn).

Box

EVC: **Box** Ironbark Forest – co-dominated by a variety of Box eucalypts.

EVC: Limestone **Box** Forest - dominated by Coast Grey Box *Eucalyptus bosistoana*/Blue Box *Eucalyptus bauerana*.

Cane Grass

EVC: **Cane Grass** Wetland – dominated by Southern Cane-grass *Eragrostis infecunda*/Cane-grass *Eragrostis australasica*.

Coast Banksia

EVC: **Coast Banksia** Woodland – dominated by Coast Banksia *Banksia integrifolia* subsp. *integrifolia*

Fern

EVC: **Fern** Swamp – dominated by Pteridophytes (ie. vascular plants that produce spores rather than seed, with a distinctive alternation of generations). Often common in sheltered, moist environments.

Gahnia

EVC: **Gahnia** Sedgeland – dominated by Coast Saw-sedge *Gahnia trifida* and / or Tall Saw-sedge *Gahnia clarkei*.

EVC nomenclature

Ironbark

EVC: **Box Ironbark Forest** – dominated in part by Red Ironbark *Eucalyptus tricarpa*/Mugga *Eucalyptus sideroxylon*.

Lignum

EVCs: **Lignum Wetland**, Freshwater **Lignum Shrubland**, **Lignum Shrubland**, **Lignum Swampy Woodland**, **Lignum-Cane Grass Swamp**, Cane Grass-**Lignum Halophytic Herbland** – dominated by Tangled Lignum *Muehlenbeckia florulenta*.

Mangrove

EVC: **Mangrove Shrubland** – dominated by Grey Mangrove *Avicennia marina* subsp. *australasica*.

Melaleuca

EVC: Damp **Melaleuca Scrub** – dominated by Swamp Paperbark *Melaleuca ericifolia*.

Pomaderris

EVC: Limestone **Pomaderris Shrubland** – dominated by Bassian Pomaderris *Pomaderris oraria*/ Limestone Pomaderris *Pomaderris oraria* subsp. *calcicola*/Bassian Pomaderris *Pomaderris oraria* subsp. *oraria*.

Red Gum

EVC: **Red Gum Swamp** – dominated by River Red Gum *Eucalyptus camaldulensis*/Forest Red Gum *Eucalyptus tereticornis*.

Salt Paperbark

EVC: **Salt Paperbark Woodland** – dominated by Salt Paperbark *Melaleuca halmaturorum*.

Spike-sedge

EVC: **Spike-sedge Wetland** dominated by Common Spike-sedge *Eleocharis acuta*.

Sweet Grass

EVC: **Sweet Grass Wetland** – dominated by Australian Sweet-grass *Glyceria australis*.

Tea-tree

EVC: **Tea Tree Scrub** – dominated by Mallee Tea-tree *Leptospermum coriaceum*.

Note: Such common name usage in vegetation typologies should only be employed when it is unambiguously evident that the species referred to is reliably a structural member of that plant community. This particular problem has occurred in the past as for example with Red Gum Woodland and *Leptospermum myrsinoides* Heathland. In such cases these communities have been renamed as Plains Grassy Woodland and Sand Heathland.

The use of plant names in vegetation community names should be avoided, as it fosters the misunderstanding that individual plant species' ecological ranges are synonymous with plant communities. For example, the previous name 'Coastal Moonah Woodland' was superseded by Coastal Alkaline Scrub as many stands of this vegetation community no longer support Moonah (*Melaleuca lanceolata* subsp. *lanceolata*) and occur as scrubs rather than woodlands. The community is defined by a set of floristic criteria and thus still occurs at sites that do not support Moonah and are not structurally woodlands. 'Moonah' was incorporated into the community's name as a useful indicator of high quality sites, not as an essential part of the community's definition. However, this distinction has been frequently overlooked.

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