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**VEGETATION SURVEY
OF
DRYANDRA FOREST**

Prepared for: Department of Conservation and Land Management
Western Australia

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1.0 INTRODUCTION

Dryandra State Forest covers an area of approximately 23 500 hectares and is spread over 24 blocks some of which are separated by cleared farmland. The largest contiguous area (central blocks) is 12 192 hectares, the other 8 outlying areas range in size from 87 hectares to 3 913 hectares. Approximately 8 000 hectares of the forest area has been converted to Mallet (*Eucalyptus astringens*) plantations. The blocks are scattered within an area situated north and north west of Narrogin with the nearest block ~11 kilometres and the most distant block ~40 kilometres from the townsite.

The region experiences a typical Mediterranean climate with mild wet winters and warm to hot, dry summers with the blocks lying between the 500 mm and 600 mm isohyets for mean annual rainfall. The area has a low relief ranging from 240-440 metres above sea level.

A management plan for Dryandra (including Highbury State Forest No. 52) is currently being produced. The aim of this project is to prepare a vegetation map of the natural bushland areas and also to prepare a comprehensive species list for Dryandra Forest which will include past collections and incorporate new recordings made during the present survey.

1.1 Geology and Soils

The area of Dryandra Forest is part of the Western Shield. The landform units covering the area are described by McArthur *et al* (1977). The major units include the Norrine and Noombling units. The Norrine unit is a lateritic landform covering areas dominated by duricrust, gravels and sand. The laterite residuals are usually small and bounded by small escarpments. This unit usually occupies upper landscape positions but occasionally extends, as a spur, from the interfluvium to the lower slopes. The Noombling unit is an erosional landform covering areas stripped of lateritic materials. The slopes are long and gentle and rock outcrops are common.

McArthur *et al* (1977) include the Biberkine unit in their description of the Dryandra region. This unit is a depositional landform which includes areas of alluvial valley fill and consists of the valley floors of major tributary streams. The unit mainly covers areas adjacent to the Forest blocks and areas on the periphery of the State Forest.

Figure 1 shows the relationship between the landforms and soils of the Dryandra regions and Table 1 summarises soil data from McArthur *et al* (1977).

Figure 1: Relief diagram and section of landscapes in the Dryandra area (from McArthur et al 1977)

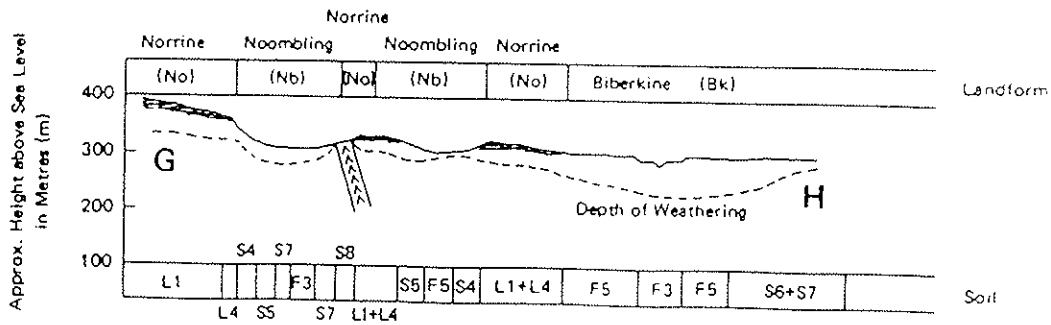
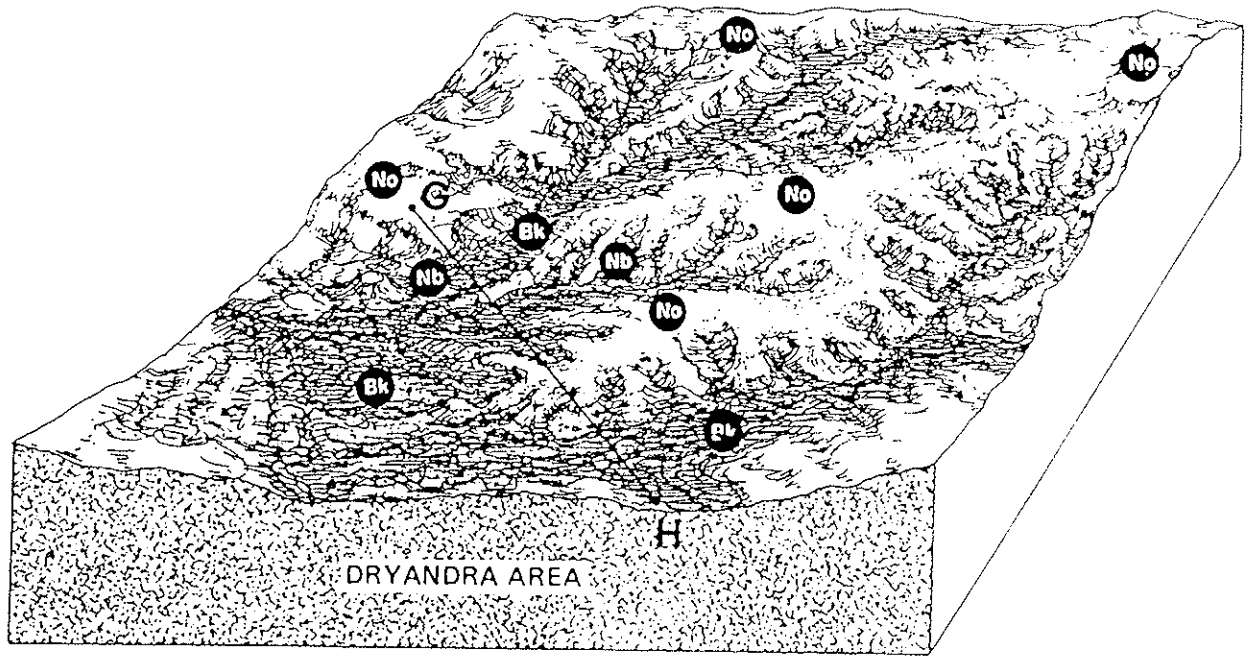


Table 1 Landform units and their associated soils for the Dryandra region as described in McArthur *et al* (1977)

| Landform Unit | Description | Soils |
|---------------|-----------------------|--|
| Norrine | lateritic landform | <ol style="list-style-type: none"> 1. yellow earthy sand, often with gravel, lower horizon may be cemented into sheets and boulders. 2. duricrust - fringe around top of residuals 3. dissected areas between residuals - sand or sandy loam, often gravelly, and overlying mottled or pallid zone clay. |
| Noombling | erosional landform | <ol style="list-style-type: none"> 1. shallow and stony soils in association with rock outcrops. 2. on lower slopes - red earths or yellow duplex soils 3. in association with laterite residuals - yellow earths on slopes below escarpments, gravelly detritus on steep pediments extending from base of escarpment, gravelly duplex soils on small rises and duplex soils \pm gravel on gently sloping pediments. |
| Biberkine | depositional landform | <ol style="list-style-type: none"> 1. upper terrace has a yellow duplex soil 2. undifferentiated alluvium. |

2.0 METHOD

The ground survey of the vegetation of Dryandra State Forest was carried out during June and July 1992 covering a period of 15 days.

General vegetation divisions were noted using colour aerial photography at a scale of 1:12 500. Areas of interest thus delineated were examined in the field and the vegetation and soils at selected sites described. Because of time limitations some areas were not covered in detail in the ground survey and mapping was carried out by extrapolation of known vegetation associations using the aerial photographs.

Vegetation association descriptions were based on the classification system devised by Muir (1977) which was specifically designed for describing wheatbelt vegetation (Table 2).

Voucher specimens of plant species were collected for new species not previously recorded for the forest area or where some uncertainty existed with regard to species identification needed for vegetation descriptions. Flora survey work was greatly restricted by time limitations and lack of flowering material.

The voucher specimens were identified using keys and by comparison with specimens at the WA Herbarium. Experts involved in revising past genera were consulted wherever possible to ensure accuracy with identification.

TABLE 2 - MUIR SYSTEM OF VEGETATION CLASSIFICATION

| LIFE FORM/HEIGHT CLASS | CANOPY COVER | | | |
|---|---|---|---|--|
| | DENSE 70 - 100% | MID-DENSE 30 - 70% | SPARSE 10 - 30% | VERY SPARSE 2 - 10% |
| T Trees > 30 metres M Trees 15 - 30 metres LA Trees 5 - 15 metres LB Trees < 5 metres | Dense Tall Forest Dense Forest Dense Low Forest A Dense Low Forest B | Tall Forest Forest Low Forest A Low Forest B | Tall Woodland Woodland Low Woodland A Low Woodland B | Open Tall Woodland Open Woodland Open Low Woodland A Open Low Woodland B |
| KT Mallee tree form KS Mallee shrub form | Dense Tree Mallee Dense Shrub Mallee | Tree Mallee Shrub Mallee | Open Tree Mallee Open Shrub Mallee | Very Open Tree Mallee Very Open Shrub Mallee |
| S Shrubs > 2 metres SA Shrubs 1.5 - 2.0 metres SB Shrubs 1.0 - 1.5 metres SC Shrubs 0.5 - 1.0 metres SD Shrubs 0.0 - 0.5 metres | Dense Thicket Dense Heath A Dense Heath B Dense Low Heath C Dense Low Heath D | Thicket Heath A Heath B Low Heath C Low Heath D | Scrub Low Scrub A Low Scrub B Dwarf Scrub C Dwarf Scrub D | Open Scrub Open Low Scrub A Open Low Scrub B Open Dwarf Scrub C Open Dwarf Scrub D |
| P Mat plants H Hummock Grass GT Bunch grass > 0.5 metres GL Bunch grass < 0.5 metres J Herbaceous spp. | Dense Mat Plants Dense Hummock Grass Dense Tall Grass Dense Low Grass Dense Herbs | Mat Plants Mid Dense Hummock Grass Tall Grass Low Grass Herbs | Open Mat Plants Hummock Grass Open Tall Grass Open Low Grass Open Herbs | Very Open Mat Plants Open Hummock Grass Very Open Tall Grass Very Open Low Grass Very Open Herbs |
| VT Sedges > 0.5 metres VL Sedges < 0.5 metres | Dense Tall Sedges Dense Low Sedges | Tall Sedges Low Sedges | Open Tall Sedges Open Low Sedges | Very Open Tall Sedges Very Open Low Sedges |
| X Ferns, Mosses, Liverwort | Dense Ferns Dense Mosses | Ferns Mosses | Open Ferns Open Mosses | Very Open Ferns Very Open Mosses |

3.0 VEGETATION SURVEY

3.1 Previous Surveys

Dryandra Forest is situated in the Narrogin and Dryandra Vegetation Systems which are subdivisions of the Darling Botanical District, Dale sub district (Darling Range) and the Avon Botanical District. The Avon Botanical District in general covers the area known as the wheatbelt and lies east of the Darling Range, approximately east of the 500 mm isohyct. The eastern limit of *Eucalyptus calophylla* is taken as marking its boundary into the Darling District.

Beard (1979) describes the basic catena in the Dryandra system (Darling Botanical District) as comprising:

- a) the communities of granite outcrops;
- b) woodland of powderbark wandoo (*Eucalyptus accedens*) and brown mallet (*Eucalyptus astringens*) on laterite plateaux replacing the Jarrah of the Darling Range;
- c) woodland of wandoo and powderbark on upper slopes with a gravel wash below the breakaways;
- d) marri and wandoo on middle slopes;
- e) York gum on the lowest slopes close to major drainage channels;
and
- f) river gum lining creeks and at time scattered on slopes.

The Narrogin System is a lower-rainfall equivalent of the Dryandra System and lies further to the east. Both *Eucalyptus marginata* and *Eucalyptus calophylla* have largely dropped out distinguishing the Narrogin system as a separate system belonging to the Avon District (Beard 1980). Outliers of *Eucalyptus calophylla* which regularly associates with *Eucalyptus wandoo* in the Dryandra System, occur occasionally in the wandoo.

Dryandra Forest is situated within the Pinjarra and Corrigin grid squares mapped by Beard (1979) and Beard (1980) at a scale of 1:250 000. From this work it can be noted that the map units covering the blocks include mallet, powderbark and wandoo woodland. The Forests Department compiled Mallet Classification Maps at a scale of 1:25 000 in May 1980 from the interpretation of aerial photography dated November 1978. The mallet areas were classified as mallet, sparse mallet, wandoo and other species, and very open.

3.2 Present Survey

A general catena or sequence is described for vegetation changes from the lateritic plateau remnants to valley soils. The landscape is dissected and changes occur rapidly over short distances forming the intricate mosaic typical of wheatbelt vegetation.

The vegetation was primarily divided into formations based on the definitions provided by Muir (1977) including tree communities (Low Woodlands, Woodlands, Low Forests), kwongan (Shrubland and Heath) and Lithic Complex (Granite). The communities were further divided into species associations within these groupings. Table 3 presents the vegetation associations mapped during the present survey and Muir descriptions for the vegetation found at selected sites marked on the maps are presented in Appendix 2.

Vegetation descriptions of each association mapped in the present survey are detailed in the following pages. Considerable variation in understorey structure and species composition were encountered during the survey partly due to past disturbances including control burns. The vegetation descriptions only provide a sample of the variation noted during fieldwork.

3.3 Vegetation Maps

Stereo pairs of colour aerial photography at a scale of 1:12 500 were used for mapping the vegetation of Dryandra Forest. The photographs provided a base for the vegetation maps and approximate boundaries of best fit for the Forest area. These forest boundaries have not been corrected from the Department of Land Administration lithographs and are only approximate due to variation between aerial photographs related to topographical changes.

The style of mapping and the symbols used on the maps are based on the Tutanning and Boyagin Rock Nature Reserve vegetation maps. Symbols in brackets represent occasional species or associations covering areas too small to map.

Boundaries between the *Eucalyptus accedens* and *Eucalyptus wandoo* woodlands are uncertain due to difficulties in delineating these areas on the aerial photography and in the field. On the lateritic plateaux the change from woodland to kwongan is gradual as the associations tend to intergrade. It was therefore not always possible to map these areas separately.

The changes in the understorey of woodland areas on the lateritic plateaux were not discernible from the aerial photographs and therefore boundaries could not be drawn. Symbols mark the type of understorey at the location indicated on the map only. In general tall kwongan (Kd) forms an understorey on the duricrust (usually at the fringe of the residuals) with *Dryandra squarrosa*, *Dryandra sessilis* and Low Heath (K) forming lower strata in deeper sands and gravel in central areas.

The genus *Dryandra* is at present under revision and recent information (M Pieroni *pers comm.*) indicates that *Dryandra carduacea* recorded for Dryandra Forest is now believed to be *Dryandra squarrosa*. Areas of *Dryandra carduacea* marked on the vegetation maps should therefore be recorded as areas of *Dryandra squarrosa*.

Due to time restrictions the Mallet Plantations were not included in the present survey. The vegetation maps cover areas of natural bushland occurring in Dryandra Forest except for Davies Block. Montague Block was mapped from aerial photograph interpretation and was not checked in the field.

The mallet plantations will now need to be surveyed as valuable conservation areas have been noted within the boundaries including a wetland and kwongan (Keighery and Marchant *pers comm.*). Rare vegetation associations may also occur within the plantations where mallet is sparse or absent.

Table 3 Vegetation Associations of Dryandra Forest

| VEGETATION ASSOCIATION | MAP UNIT | LANDSCAPE POSITION | SOIL TYPE | COMMENTS |
|---|----------|--|--|--|
| <i>Eucalyptus accedens</i> (powderbark wandoo) Woodland | Ea | steep to gentle upper slopes below the lateritic plateaux and small gravelly rises in mid slope position | sand or sandy loam and gravelly duplex soils | covers extensive areas |
| <i>Eucalyptus astringens</i> (brown mallet) Forest | M | naturally occurring on steep slopes adjoining breakaways or escarpments | clayey soils with laterite | commonly occurring but covering small areas in the natural bushland |
| <i>Eucalyptus calophylla</i> (marri) Woodland | Ec | lower and mid slopes | grey sandy soils | covering small areas only. <i>Eucalyptus marginata</i> occasional |
| <i>Eucalyptus loxophleba</i> (York gum) Woodland | EI | Lower slopes often in association with granite or drainage lines | loam soils over clay | only four small areas found during the survey. This association is more common on adjacent valley soils, although extensive areas have now been cleared. |

| | | | | |
|--|-----------------------|---|---|---|
| Lateritic plateau Woodlands <i>Eucalyptus accedens</i> , <i>Eucalyptus calophylla</i> , <i>Eucalyptus marginata</i> occasionally <i>Eucalyptus wandoo</i> . Either species dominant or co-dominant over short distances. | E a c m w | lateritic plateaux remnants usually bounded by escarpments, spurs to lower slopes | duricrust, sand and sandy loam ± gravel in depressions, shallow gravelly soils over ironstone | Kd understorey on duricrust - usually fringe around tops of residuals. Kdc, Kds and K understorey on deeper sands and gravelly soils generally on interior parts of plateau |
| <i>Eucalyptus wandoo</i> (white gum, wandoo) Woodland | Ew | mid to lower slopes, occasionally sandier upper slopes, low lying areas and drainage lines | sand to sandy loam ± gravel over clay | extensive throughout the forest area |
| <i>Eucalyptus wandoo</i> (white gum)/ <i>Allocasuarina huegeliana</i> (rock sheoak) Forest | EwC | mid and lower slopes | sandy soils | commonly occurring but covering only small areas |
| <i>Allocasuarina huegeliana</i> (rock sheoak) Low Forest | C | slopes below the lateritic plateaux | sandy soils in association with granite outcrops or pavement | relatively common but not extensive in the area surveyed |
| <i>Acacia acuminata</i> (jam) Low Forest | A | lower slopes, low lying areas often associated with granite or drainage lines | loam soils sometimes in association with granite | occasionally forms a sparse understorey in Ew (EwA) or a sparse to mid-dense understorey in E1. The association is occasional and covers only small areas |
| Short kwongan (diverse mixed shrubland < 2 metres) | K | occasionally on the lateritic plateau usually on slopes below. Sometimes associated with granite rock | shallow gravelly soils, deeper sands and gravels, gravelly duplex soils | commonly occurring but covering only small areas. Shrub Mallee (Ke) form an upper stratum in some areas |
| <i>Dryandra</i> and <i>Petrophile</i> Shrubland (Tall kwongan) > 2 metres when mature | Kd | duricrust, usually forming a fringe around the tops of lateritic residuals | shallow gravelly soils over ironstone | covers only small areas of the Forest and merges with lateritic plateau woodlands |
| Lithic complex - granite | | slopes below the lateritic plateau | rock surface and associated soils | small outcrops are relatively common. No large outcrops encountered in survey area |

WOODLAND FORMATIONS

Ea *Eucalyptus accedens* (powderbark wandoo) Woodland

Diagnosis Low Woodland A (Woodland/Low Forest A) over *Gastrolobium*
Low Scrub A/Heath B/Open Dwarf Scrub C in places over Open
Dwarf Scrub D/Dwarf Scrub D

Sites Smith 9, Smith 13, Harris 2, Dryandra 3

Description

Stratum 1 Low Woodland A of *Eucalyptus accedens*, occasionally Low Forest
A or Woodland (to 18 metres). Trees of *Eucalyptus wandoo* are
usually present as scattered individuals.

Stratum 2 In some areas *Gastrolobium* shrubs to 2 metres form a patchy and
discontinuous stratum. Low Scrub A, Open Low Scrub B, Heath B
and Open Dwarf Scrub C were recorded at different sites.
Gastrolobium microcarpum was the most commonly occurring
species with *Gastrolobium trilobum* recorded on Harris, Palmer and
Turner blocks. *Gastrolobium calycinus* and *Gastrolobium*
parviflorum were occasional. Other stratum 2 species to 1.5 metres
in height include *Hypocalymma angustifolium*, *Dryandra proteoides*,
Macrozamia riedlei and *Xanthorrhoea drummondii*.

Stratum 3 Mixed plant species form a lower stratum of Open Dwarf Scrub D to
Dwarf Scrub D in some areas. Stratum 3 species include *Dianella*
revoluta, *Hibbertia* species, *Acacia lasiocarpa*, *Acacia pulchella*,
Astroloma species, *Bossiaea eriocarpa*, *Lomandra mucronata*,
Chamaexeros serra and *Trymalium ledifolium*. Plant species may be
present only as scattered individuals in places.

Photograph 1: *Eucalyptus accedens* (powderbark wandoo) Woodland on Smith Block.



Photograph 2: *Eucalyptus accedens* Woodland with an understorey of *Gastrolobium trilobum* and *Gastrolobium parviflorum* on Palmer Block.



M *Eucalyptus astringens* (brown mallet) Low Forest

Diagnosis Low Forest A (Low Woodland A).
Regeneration - Low Forest B/Dense Low Forest B.

Sites Smith 5, Penny 4, Penny 6, Candy 2.

Description

Stratum 1 Low Forest A occasionally to Low Woodland A (8 to 12 metres) of *Eucalyptus astringens*. Scattered trees of *Eucalyptus accedens* may be present. Low Forest B/Dense Low Forest B in areas regenerating after fire.

Lower Stratum No understorey is usually present with shrubs occurring as scattered individuals. Species recorded include *Gastrolobium parviflorum*, *Gastrolobium trilobum*, *Bossiaea eriocarpa* and *Daviesia* species.

Photograph 3: *Eucalyptus astringens* regenerating on Penny block.



Photograph 4: *Eucalyptus astringens* (brown mallet) Low Forest on Penny block.



Ec *Eucalyptus calophylla* (marri) Woodland

Diagnosis Low Woodland A/Woodland over Scrub (Thicket) over Dwarf Scrub D.

Sites Peter 13, Smith 10, Dryandra 4, Harris 1, Candy 5

Description

Stratum 1 Low Woodland A, occasionally to Woodland or Open Low Woodland A, of *Eucalyptus calophylla* 5 to 16 metres in height. Scattered trees of *Eucalyptus accedens*, *Eucalyptus wandoo* and occasionally *Eucalyptus marginata* may be present.

Stratum 2 Scrub, occasionally Thicket, forms a patchy stratum at most localities. Characteristic species include *Dryandra sessilis*, *Hakea trifurcata*, *Hakea prostrata*, *Nuytsia floribunda* and *Jacksonia sternbergiana*.

Stratum 3 Open Low Scrub A to Low Scrub B or Heath over short distances. Stratum 3 occurs only occasionally with shrubs to 2 metres commonly present as scattered individuals only. Stratum 3 species include *Leptospermum erubescens*, *Conospermum stoechadis*, *Adenanthos cygnorum*, *Hakea incrassata*, *Gastrolobium calycinus*, *Gastrolobium parviflorum*, *Gastrolobium microcarpum* and *Hypocalymma angustifolium*.

Stratum 4 Dwarf Scrub D occasionally to Low Heath D. Stratum 4 species include *Astroloma* species, *Hibbertia* species, *Bossiaea eriocarpa*, *Caustis dioica*, *Petrophile macrostachya*, *Leucopogon* species, *Loxocarya* species, *Borya sphaerocephala*, *Calytrix* species and *Lomandra* species.

Photograph 5: *Eucalyptus calophylla* Woodland on Candy Block with an understorey of *Dryandra sessilis*.



El *Eucalyptus loxophleba* (York gum) Woodland

Diagnosis Low Forest A/Low Woodland A over *Acacia acuminata* Open Low Woodland B to Low Forest B in places over Open Low Sedges/Open Dwarf Scrub D in places.

Sites Peter 12, Skelton 2, Smith 14, Penny 7

Description

Stratum 1 Low Forest A to Low Woodland A of *Eucalyptus loxophleba* to 12 metres. Scattered trees of *Eucalyptus wandoo* and occasionally *Allocasuarina huegeliana* may be present.

Stratum 2 Open Low Woodland B to Low Forest B of *Acacia acuminata* forms a patchy stratum in most areas.

Stratum 3 Scattered shrubs and sedges form Open Dwarf Scrub D/Open Low Sedges in some areas. Annuals present in the spring. Stratum 3 species include *Astroloma epacridis*, *Loxocarya aspera*, *Hibbertia* species, *Stypandra glauca*, *Acacia lasiocarpa* and *Lepidosperma* species.

Photograph 6: *Eucalyptus loxophleba* Woodland with *Acacia acuminata* (jam).



E **Lateritic Plateau Woodlands**

| | | | |
|-----------|-------------------------------|-----------|------------------------------|
| Ea | <i>Eucalyptus accedens</i> , | Ec | <i>Eucalyptus calophylla</i> |
| Em | <i>Eucalyptus marginata</i> , | Ew | <i>Eucalyptus wandoo</i> |

1. **Ekd** Tall Kwongan understorey. *Dryandra nobilis*, \pm *Dryandra stuposa*, \pm *Dryandra squarrosa* prominent

Diagnosis Low Woodland A/Open Low Woodland A over Scrub/Thicket (Dense Heath A) over variable lower strata.

Sites Skelton 10, Dryandra 1, Dryandra 2, Penny 5

Description

Stratum 1 Low Woodland A to Open Low Woodland A, occasionally Woodland to 18 metres, of *Eucalyptus accedens*, *Eucalyptus marginata*, *Eucalyptus calophylla* or occasionally *Eucalyptus wandoo*. Each species may be dominant over short distances, co-dominant, present as scattered individuals or absent in some areas.

Stratum 2 Usually Scrub to Thicket with *Dryandra nobilis* prominent and *Dryandra squarrosa* and/or *Dryandra stuposa* prominent in some areas. Shrubs are over 2 metres when mature. Heath A or Heath B occasionally to Dense Heath A (site Penny 5) in areas more recently burnt. Other characteristic species include *Adenanthos cygnorum*, *Isopogon dubius*, *Petrophile divaricata* and *Petrophile heterophylla*.

Stratum 3 Dwarf Scrub C/Open Dwarf Scrub C to Low Heath C where Stratum 2 is more open. Characteristic species include *Allocasuarina humilis*, *Banksia sphaerocarpa*, *Beaufortia incana*, *Dryandra armata*, *Gastrolobium microcarpum*, *Gastrolobium bilobum*, *Grevillea hookeriana*, *Hakea ruscifolia*, *Styphelia tenuiflora* and *Jacksonia floribunda*.

Stratum 4 Dwarf Scrub D to Open Dwarf Scrub D in some areas. Stratum 4 species recorded include *Bossiaea eriocarpa*, *Grevillea tenuiflora*, *Darwinia dryandrensis* (ms), *Astroloma epacridis*, *Lepidosperma* species and *Chamaexeros serra*.

Photograph 7: *Eucalyptus accedens* and *Eucalyptus calophylla* over Tall Heath with *Dryandra nobilis* prominent on Penny Block (EacKd)



Photograph 8: *Eucalyptus marginata* with occasional *Eucalyptus accedens* over an understorey of Tall Heath on Bald Rock Block (Em(a)Kd)



2. **EKdc** *Dryandra (carduacea) squarrosa* understorey

Diagnosis Open Low Woodland A/Low Woodland A over Scrub/Thicket to Low Scrub B/Heath B over variable lower strata.

Sites Peters 3, Skelton 8, Skelton 9, A25 1

Description

Stratum 1 Open Low Woodland A/Low Woodland A, occasionally to Woodland, of *Eucalyptus accedens*, *Eucalyptus calophylla*, *Eucalyptus marginata* or occasionally *Eucalyptus wandoo*. Each species may be dominant, co-dominant, present as scattered individuals or absent in some areas.

Stratum 2 Scrub/Thicket to Low Scrub B/Heath B with *Dryandra (carduacea) squarrosa* prominent. *Dryandra nobilis* may be occasional. Other Stratum 2 species include *Petrophile heterophylla*, *Hakea ruscifolia*, *Hakea trifurcata*, *Leptospermum erubescens*, *Dryandra sessilis*, *Acacia celastrifolia*, *Melaleuca ?scabra*, *Allocasuarina humilis* and *Isopogon dubius*.

Stratum 3 Open Dwarf Scrub C/Dwarf Scrub C to Dwarf Scrub D of mixed plant species in most areas. Stratum 3 species include *Chamaexeros serra*, *Bossiaea eriocarpa*, *Grevillea tenuiflora*, *Synaphea* species, *Dryandra armata*, *Lomandra mucronata*, *Petrophile serruriae*, *Hibbertia exasperata*, *Acacia pulchella*, *Astroloma* species, *Leucopogon* species, *Hovea chorizemifolia* and *Grevillea leptobotrya*.

Photograph 9: *Eucalyptus marginata* with occasional *Eucalyptus accedens* over an understorey of *Dryandra squarrosa*. (Em(a)Kdc) on A25 Block.



3. EKds *Dryandra sessilis* understorey

Diagnosis Low Woodland A/Open Low Woodland A over Scrub over variable lower strata.

Sites Skelton 6, Miles 4

Description

Stratum 1 Low Woodland A/Open Low Woodland A of *Eucalyptus calophylla* with *Eucalyptus accedens* or occasionally *Eucalyptus wandoo* or *Eucalyptus marginata*.

Stratum 2 Scrub of *Dryandra sessilis* to 4 metres in places forming a patchy and discontinuous stratum.

Stratum 3 Low Scrub B to Low Heath C in some areas. Stratum 3 species include *Gastrolobium microcarpum*, *Xanthorrhoea drummondii*, *Banksia sphaerocarpa*, *Gastrolobium bilobum*, *Styphelia tenuiflora*, *Hypocalymma angustifolium*, *Petrophile serruriae* and *Hakea lissocarpa*.

Stratum 4 Dwarf Scrub D in most areas with Open Low Sedges occasional. Stratum 4 species include *Hibbertia* species, *Astroloma epacridis*, *Dryandra bipinnatifida*, *Bossiaea eriocarpa*, *Chamaexeros serra*, *Grevillea tenuiflora*, *Lomandra mucronata*, *Dryandra armata*, *Synaphea* species and *Hovea chorizemifolia*.

Photograph 10: *Eucalyptus accedens* and *Eucalyptus calophylla* with an understorey of *Dryandra sessilis* on Dryandra block.



4. EK Low Heath understorey

Diagnosis Low Woodland A (Woodland)/Open Low Woodland A over Heath C/Dwarf Scrub C over Low Heath D/Dwarf Scrub D.

Sites Peters 2, Peters 7, Skelton 1, Skelton 11, Smith 6

Description

Stratum 1 Low Woodland A/Open Low Woodland A, occasionally to Woodland (10 to 18 metres), of *Eucalyptus accedens*, *Eucalyptus calophylla*, *Eucalyptus marginata* or occasionally *Eucalyptus wandoo*. Each species may be dominant, co-dominant, present as scattered individuals or absent in some areas.

Stratum 2 Scattered clumps of shrub mallee may form Very Open Shrub Mallee in some areas. *Eucalyptus drummondii* is characteristic with *Eucalyptus falcata* and *Eucalyptus plauricaulis* also recorded. In some areas scattered shrubs form Scrub/Open Scrub to Open Low Scrub A. Shrub species include *Petrophile heterophylla*, *Hakea trifurcata*, *Dryandra sessilis*, *Hakea prostrata*, *Xanthorrhoea drummondii*, *Santalum murrayanum*, *Hakea ruscifolia*, *Petrophile ericifolia*, *Isopogon dubius*, *Melaleuca ?scabra* and *Dryandra stuposa*.

Stratum 3 In most areas Heath C/Dwarf Scrub C, occasionally Heath B, forms a lower stratum. Characteristic species include *Leptospermum erubescens*, *Adenanthos cygnorum*, *Styphelia tenuiflora*, *Petrophile serruriae*, *Dryandra armata*, *Daviesia* species, *Hakea incrassata*, *Petrophile circinata*, *Grevillea hookeriana*, *Petrophile ericifolia*, *Allocasuarina humilis*, *Banksia sphaerocarpa* and *Conospermum stoechadis*.

Stratum 4

Open Dwarf Scrub D to Low Heath D in some areas. Stratum 4 species include *Bossiaea eriocarpa*, *Leucopogon* species, *Lomandra mucronata*, *Astroloma* species, *Dryandra nivea*, *Persoonia striata*, *Acacia stenoptera*, *Darwinia dryandrensis* (ms), *Acacia pulchella*, *Synaphea* species, *Petrophile brevifolia*, *Grevillea tenuifolia*, *Hibbertia* species, *Nemcia carinata*, *Lysinema ciliatum*, *Grevillea leptobotrya*, *Calothamnus sanguineus* and *Chamaexeros serra*.

Photograph 11: *Eucalyptus marginata* (jarrah) with an understorey of Tall Kwongan (back) and Short Kwongan (front) on Bald Rock Block.



Ew *Eucalyptus wandoo* (white gum, wandoo) Woodland

Diagnosis Low Woodland A (Open Low Woodland A, Woodland, Low Forest A) over *Acacia acuminata* Open Low Woodland B/Low Woodland B occasionally, over *Gastrolobium* Open Low Scrub A/Heath A to Open Dwarf Scrub C in places over Very Open Dwarf Scrub D to Low Heath D (Low Sedges/Open Low Sedges).

Sites Peters 5, Peters 9, Peters 10, Miles 1, Miles 2, Smith 1, Smith 11, Candy 1, Candy 3, Harris 5.

Description

Stratum 1 Low Woodland A, occasionally Woodland, Open Low Woodland A or Low Forest A, of *Eucalyptus wandoo*. *Eucalyptus accedens*, *Eucalyptus calophylla*, *Allocasuarina huegeliana* or *Acacia acuminata* may be present as scattered individuals in some areas.

Stratum 2 Occasionally scattered trees of *Acacia acuminata* form Open Low Woodland B to Low Woodland B (EwA).

Stratum 3 Open Low Scrub A/Heath A to Open Dwarf Scrub C/Heath C of *Gastrolobium* species forms a patchy discontinuous stratum in many areas. *Gastrolobium microcarpum* is the most commonly occurring species with *Gastrolobium parviflorum* and *Gastrolobium calycinus* also recorded. Other shrub species 1.0 to 2.0 metres in height, occurring as scattered individuals in some areas include *Hypocalymma angustifolium*, *Hakea prostrata*, *Leptospermum erubescens*, *Xanthorrhoea drummondii*, and *Santalum murrayanum*.

Stratum 4 Low Heath D/Low Heath C covers small areas on gravel soils at a few localities. In most areas a patchy stratum of Open Low Sedges/Dwarf Scrub D/*Borya* Herbs (Open Herbs) is present. Annuals are present in the spring. Stratum 4 species include *Dryandra armata*, *Gastrolobium bilobum*, *Dampiera* species, *Baeckea* species, *Dryandra nivea*, *Hakea incrassata*, *Isopogon teretifolius*, *Astroloma* species, *Hibbertia* species, *Loxocarya aspera*, *Calothamnus quadrifidus*, *Nemcia hookeri*, *Dryandra fraseri*, *Bossiaea eriocarpa*, *Lepidosperma* species, *Acacia pulchella*, *Acacia lasiocarpa* and *Dianella revoluta*.

Photograph 12: *Eucalyptus wandoo* with an understorey of *Gastrolobium microcarpum* on Smith Block.



Photograph 13: *Eucalyptus wandoo* Woodland with scattered trees of *Acacia acuminata* (jam) on Smith Block.



Photograph 14: *Eucalyptus wandoo* Woodland with an understorey of Low Heath on gravel soils on A25 Block.



EwC *Eucalyptus wandoo* (white gum)/*Allocasuarina huegeliana* (rock sheoak) Low Forest

Diagnosis Low Forest A or Low Woodland A over Low Forest B over variable lower strata.

Sites Skelton 4, Candy 4

Description

Stratum 1 Low Forest A of *Eucalyptus wandoo* (8 to 15 metres) and *Allocasuarina huegeliana* (5 to 10 metres) forming Low Woodland A (*Eucalyptus wandoo*) over Low Forest B of *Allocasuarina huegeliana* (to 5 metres) occasionally. Scattered trees of *Acacia acuminata* and *Eucalyptus calophylla* may be present.

Stratum 2

Shrubs are present as scattered individuals in most areas forming *Gastrolobium* Low Scrub B (patchy) occasionally. *Borya* Herbs/Open Herbs may be present in some areas. Lower stratum species include *Gastrolobium microcarpum*, *Gastrolobium parviflorum*, *Gastrolobium calycinus*, *Dianella revoluta*, *Stypandra glauca*, *Hypocalymma angustifolium*, *Hibbertia* species, *Loxocarya aspera*, *Astroloma* species. Annuals are present in the spring.

**Photograph 15: *Eucalyptus wandoo* (white gum)/*Allocasuarina huegeliana* (rock sheoak)
Forest on Candy Block.**



C *Allocasuarina huegeliana* (rock sheoak) Low Forest

Diagnosis Low Forest A (Dense Low Forest A) over variable understorey.

Sites Peters 4, Skelton 3, Smith 2, Bald Rock 1, Turner 1.

Description

Stratum 1 Low Forest A, Dense Low Forest A in some areas adjacent to granite, of *Allocasuarina huegeliana* (4 to 10 metres). Low Forest B/Dense Low Forest B in areas regenerating after fire. Scattered trees of *Eucalyptus wandoo*, *Acacia acuminata* and occasionally *Eucalyptus loxophleba* may be present. *Eucalyptus rudis* was recorded on Skelton block.

Lower Stratum A lower stratum is usually absent with shrubs present as scattered individuals. Tall Sedges of *Lepidosperma* species often occur adjacent to granite rock. Open Low Sedges and Low Scrub B/Open Low Scrub B were also recorded. Lower stratum species include *Borya* species, *Loxocarya aspera*, *Melaleuca radula*, *Hypocalymma angustifolium*, *Gastrolobium microcarpum*, *Gastrolobium parviflorum*, *Hakea petiolaris*, *Hibbertia* species, *Cheilanthes austrotenuifolia* and *Stypandra glauca*. Annuals are present in the spring.

Photograph 16: *Allocasuarina huegeliana* (rock sheoak) adjacent to granite on Bald Rock Block.



A *Acacia acuminata* (jam) Low Forest**Diagnosis** Low Forest A/Low Forest B.**Sites** Miles 3, Smith 4, Smith 12, Smith 15, Bullock 1**Description****Stratum 1** Low Forest A to Low Forest B of *Acacia acuminata* (3 to 7 metres). Scattered trees of *Allocasuarina huegeliana* and *Eucalyptus wandoo* may be present.**Lower Stratum** No discernible understorey, shrubs are usually present as scattered individuals only. Very Open Low Sedges to Low Sedges occur in some areas. Plant species recorded include *Gastrolobium microcarpum*, *Patersonia* species, *Santalum spicatum*, *Dianella revoluta*, *Cheilanthes austrotenuifolia* and *Hibbertia* species. Annuals are present in the spring.

Photograph 17: *Acacia acuminata* (jam) Low Forest on Smith Block.



KWONGAN FORMATIONS

K Short Kwongan

Diagnosis Very Open Shrub Mallee in some areas over Open Scrub to Open Low Scrub B in some areas over Heath B/Low Heath C (Low Heath D) over Dwarf Scrub D in places.

Sites Peters 8, Skelton 5, Smith 3, Smith 8, Lol Gray 1, Penny 1, Penny 2, Harris 4, Bald Rock 2, Candy 6

Description

Stratum 1 Scattered clumps of Shrub Mallee form Very Open Shrub Mallee (Ke) in some areas. Mallee species recorded include *Eucalyptus drummondii*, *Eucalyptus falcata*, *Eucalyptus incrassata*, *Eucalyptus latens* and *Eucalyptus pluricaulis*. Scattered trees of *Eucalyptus wandoo*, *Eucalyptus calophylla* and *Allocasuarina huegeliana* may also be present.

Stratum 2 Open Scrub to Open Low Scrub B in some areas. Stratum 2 species include *Petrophile ericifolia*, *Petrophile heterophylla*, *Grevillea hookeriana*, *Xanthorrhoea drummondii*, *Petrophile divaricata*, *Melaleuca radula*, *Hakea undulata*, *Melaleuca ?scabra* and *Santalum murrayanum*.

Stratum 3 Low Heath C to Heath B, occasionally Low Heath D, of mixed plant species including *Calothamnus quadrifidus* (prominent near granite), *Hakea gilbertii*, *Gastrolobium spinosum*, *Allocasuarina humilis*, *Hakea trifurcata*, *Isopogon teretifolium*, *Leucopogon* species, *Petrophile brevifolia*, *Daviesia* species, *Petrophile serruriae*, *Allocasuarina thyoides*, *Melaleuca pungens*, *Hakea lehmanniana*, *Acacia flexuosa* (near granite), *Allocasuarina microstachya*, *Gastrolobium bilobum*, *Gastrolobium microcarpum*, *Dryandra armata*, *Hakea incrassata*, *Isopogon dubius*, *Leptospermum erubescens*, *Petrophile squamata*, *Beaufortia bracteosa*, *Dryandra drummondii*, *Banksia sphaerocarpa*, *Calothamnus planifolius*, *Beaufortia incana* and *Lambertia ilicifolia*.

Stratum 4

Open Dwarf Scrub D/Dwarf Scrub D to Dwarf Scrub C forms a lower stratum in some areas. Stratum 4 species include *Caustis dioica*, *Synaphea* species, *Andersonia* species, *Nemcia carinata*, *Petrophile circinata*, *Leucopogon* species, *Astroloma* species, *Dryandra fraseri*, *Baeckea* species, *Borya* species, *Dryandra nivea* and *Chamaexeros serra*.

Photograph 18: Short Kwongan on Penny Block.



Kd *Dryandra* and *Petrophile* Shrubland (Tall Kwongan)

Diagnosis Very Open Shrub Mallee in some areas over Thicket/Heath A over variable lower strata.

Sites Peters 6, Peters 11, Skelton 7, Smith 7, Penny 3, Harris 3, Palmer 1

Description

Stratum 1 Scattered clumps of Shrub Mallee may be present forming Very Open Shrub Mallee in some areas. Mallee species include *Eucalyptus drummondii*, *Eucalyptus falcata* and *Eucalyptus plauricaulis*. Scattered trees of *Eucalyptus accedens* and *Eucalyptus calophylla* may also occur.

Stratum 2 Thicket to Heath A (Dense Heath A), occasionally Scrub, to 3 metres in places. *Dryandra nobilis* is usually prominent but *Dryandra stuposa* may be prominent with *Dryandra (carduacea) squarrosa* also commonly occurring in some areas.

Other Stratum 2 species include *Dryandra sessilis*, *Dryandra cynaroides*, *Dryandra* aff. *seneciifolia*, *Petrophile heterophylla*, *Styphelia tenuiflora*, *Adenanthos cygnorum*, *Melaleuca ?scabra*, *Hakea ruscifolia*, *Petrophile divaricata*, *Isopogon dubius*, *Lambertia ilicifolia*, *Petrophile ericifolia*, *Beaufortia incana* and *Allocasuarina humilis*.

Stratum 3 Open Dwarf Scrub C/Dwarf Scrub C to Open Dwarf Scrub D/Dwarf Scrub D in most areas to Low Heath C where the upper strata are more open. Lower stratum species include *Hakea gilbertii*, *Beaufortia bracteosa*, *Hovea trisperma*, *Daviesia* species, *Melaleuca pungens*, *Hakea incrassata*, *Hibbertia* species, *Petrophile serruriae*, *Banksia sphaerocarpa*, *Astroloma epacridis*, *Grevillea tenuiflora*, *Grevillea hookeriana*, *Persoonia quinquenervis*, *Dampiera* species and *Conospermum amoenum*.

Photograph 19: Tall Kwongan with *Dryandra nobilis*, *Dryandra stuposa* and *Eucalyptus drummondii* on Bald Rock block.



Photograph 20: Tall Kwongan with *Dryandra stuposa* prominent on Palmer Block.



LITHIC COMPLEX - GRANITE

| | |
|--|--|
| Sites | Peters 1, Skelton 12, Bald Rock 1 |
| Description | |
| Rock Surface | |
| Shallow Soil | Dense Herbs to Open Herbs of <i>Borya</i> species form a mat on flat areas on shallow soils where the rock is sub surface. Mosses and lichens cover areas of bare rock. |
| Rock Crevices | |
| Shallow Soil | Scattered shrubs growing in shallow soils in rock crevices include <i>Dodonaea viscosa</i> , <i>Melaleuca radula</i> and <i>Thryptomene australis</i> with <i>Cheilanthes austrotenuifolia</i> and <i>Stypandra glauca</i> also characteristic. |
| Deeper Soil-border of Rock Outcrops | A strip of <i>Lepidosperma</i> Tall Sedges forming an understorey in the <i>Allocasuarina huegeliana</i> Low Forest bordering the outcrops. Scattered <i>Acacia acuminata</i> and <i>Hakea petiolaris</i> occur in places and <i>Eucalyptus rudis</i> was recorded at site Skelton 12. |

4.0 FLORA OF DRYANDRA FOREST

A total of 853 plant species are recorded in Appendix 1 as occurring in the area of Dryandra Forest, including 7 species of fungi, 4 species of fern, 3 gymnosperms and 839 angiosperms. Seventy of the species recorded are exotic or introduced. Manuscript names (ms) have been included to help differentiate between undescribed species within a particular genus. Identifications with the generic name followed by "?" are uncertain due to a lack of flowering or fruiting material or to confusion in the current taxonomy of the group concerned. Affinity or "aff." is used in relation to undescribed species which are very similar to named species yet different enough to be kept as separate taxa. The nomenclature follows that of Green (1985) and Supplement 7 (Nov. 1988 unpublished) unless otherwise specified below.

Eucalyptus phaenophylla and *Eucalyptus plauricaulis* (Brooker and Hopper 1991)

Verticordia eriocephala and *Verticordia tumida* (George 1991)

New combinations and new taxa in *Gastrolobium*, *Nemcia*, *Gompholobium* and *Burtonia* (Crisp and Weston 1987)

Orchidaceae - new combinations and new taxa (Hoffman and Brown 1992)

Gnephosis pusilla (Short 1987)

Hyalospermum cotula, *Hyalospermum demissum* (Wilson 1989)

Goodenia convexa, *Goodenia helmsii* (Carolin 1990)

The Plant Species List (Appendix 1) is the combination of a "Dryandra Flora Checklist" compiled by Ms Sue Patrick from records and recent identifications recorded at the Western Australian Herbarium and "A vascular plant list for Dryandra State Forest" compiled by Dr Greg Keighery and Mr David Rose. Only 7 species were added to the list from collections made during the present survey.

The families with the largest representatives of genera and species are listed below:

| Family | No. of Species | No. of Genera | No. of Exotics |
|---|----------------|---------------|----------------|
| Myrtaceae (Eucalyptus, bottlebrushes etc) | 72 | 16 | 0 |
| Asteraceae (daisies) | 71 | 38 | 13 |
| Proteaceae (Banksia, Dryandra etc) | 70 | 11 | 0 |
| Papilionaceae (pea flowers) | 68 | 17 | 4 |
| Orchidaceae (orchids) | 63 | 19 | 1 |
| Mimosaceae (wattles) | 33 | 1 | 2 |
| Poaceae (grasses) | 32 | 22 | 16 |
| Anthericaceae (lilies) | 29 | 10 | 0 |
| Cyperaceae (sedges) | 25 | 9 | 1 |

The families Myrtaceae, Asteraceae, Papilionaceae and Proteaceae were the most strongly represented in the flora of Dryandra Forest. Of the monocotyledons, members of the families Orchidaceae, Poaceae, Anthericaceae and Cyperaceae are the most common.

4.1 Species of Interest

Plant species of interest recorded for Dryandra Forest are listed in Table 4. These species have been classified by the Department of Conservation and Land Management into categories which reflect their conservation status. These categories are listed below. A gazetted rare plant, *Caladenia integra* and 17 priority species are recorded in Table 4.

CONSERVATION CODES

R: Declared Rare Flora - Extant Taxa

Taxa which have been adequately searched for and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such.

X: Declared Rare Flora - Presumed Extinct Flora

Taxa which have not been collected, or otherwise verified, over the past 50 years despite thorough searching, or of which known wild populations have been destroyed more recently, and have been gazetted as such.

1: Priority One - Poorly Known Taxa

Taxa which are known from one or a few (generally <5) populations, which are under threat either due to small population size, or being on lands under immediate threat, eg. road verges, urban areas, farmland, active mineral leases, etc., or the plants are under threat, eg. from disease, grazing by feral animals, etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.

2: Priority Two - Poorly Known Taxa

Taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (ie. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.

3: Priority Three - Poorly Known Taxa

Taxa which are known from several populations, at least some of which are not believed to be under immediate threat (ie. not currently endangered). Such taxa are under consideration for declaration as 'rare flora' but are in need of further survey.

4: Priority Four - Rare Taxa

Taxa which are considered to have been adequately surveyed and which whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5-10 years.

TABLE 4: DRYANDRA STATE FOREST - RARE AND PRIORITY FLORA
(28 October 1992 - Priority Flora List)

| SPECIES | CODE | COLLECTED BY | DISTRIBUTION (CALM PRIORITY FLORA LIST) |
|---|------|---------------------------|--|
| <i>Acacia deflexa</i> | 2 | Rose | Toolibin, Bending, Dryandra Forest - Montague Block |
| <i>Acacia semitrullata</i> | 3 | Keighery | Yallingup, Donnybrook, Harvey, Yarloop |
| <i>Andersonia bifida</i> | 2 | Rose | Dryandra |
| <i>Caladenia integra</i> | R | Rose | York-Kendenup |
| <i>Darwinia thymoides</i> ssp. nov | 4 | Keighery | St. Ronans Nature Reserve, Dryandra |
| <i>Darwinia</i> sp. <i>dryandra</i> (aff. <i>vestita</i>), <i>dryandrensis</i> (ms) | 4 | Alford and Keighery 64 | Dryandra |
| <i>Dryandra cynaroides</i> | 2 | Rose | Brookton, Williams, Dumbleyung |
| <i>Dryandra subpinnatifida</i> | 3 | Rose and Keighery | Dryandra, Birdwhistle, Kojonup, Broomehill |
| <i>Dryandra</i> aff. <i>hewardiana</i> (ASG sp. 1) | 2 | K S Beard 8140 | Woodanilling to Katanning |
| <i>Eucalyptus latens</i> | 4 | Rose | North Bannister, York, Kulin, Dryandra, Highbury |
| <i>Grevillea crowleyi</i> (ms) | 1 | Rose | Darkan |
| <i>Hemigenia</i> ? <i>platyphylla</i> | 4 | Rose | Mt. Bakewell |
| <i>Hibbertia montana</i> | 4 | Rose | Mt. Bakewell, Bodakine Hills, Boyagin Rock, Dryandra |
| <i>Nemcia stipularis</i> | 4 | Rose | Brookton, Boyagin, Dryandra, Highbury |
| <i>Persoonia hakeiformis</i> | 2 | Rose | Mogumber, Grass Patch, Dryandra |
| <i>Rinzia crassifolia</i> | 3 | Rose | Watheroo, Darling Range, Meckering, York |
| <i>Schoenus</i> aff. <i>clandestinus</i> | 2 | Keighery/Alford | St. Ronans Nature Reserve, Mokine Nature Reserve |
| <i>Thysanotus tenuis</i> | 3 | Rose | Northam, Wagin |

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**APPENDIX 1
PLANT SPECIES LIST FOR DRYANDRA FOREST**

| | |
|---|---|
| * | Introduced species |
| R | recorded by David Rose |
| K | recorded by Greg Keighery |
| B | recorded by both David Rose and Greg Keighery |
| C | recorded by Anne Coates |

FUNGI

| | |
|----------------------------|----------------|
| Amanita murina | A.Saar 6.74 |
| Amanita sp. | A.Saar 29.7.78 |
| Boletus caesareus | A.Saar 29.7.78 |
| Clavaria sp. | A.Saar 29.7.78 |
| Cortinarius sp. | A.Saar 29.7.78 |
| Polyporus sp. | A.Saar 1974 |
| Phaeogyroporus portentosus | anon |

FERNS

LYCOPODIACEAE

| | |
|--------------------------|---|
| Phylloglossum drummondii | K |
|--------------------------|---|

OPHIOGLOSSACEAE

| | |
|--------------------------|---|
| Ophioglossum lusitanicum | K |
|--------------------------|---|

ADIANTACEAE

| | |
|------------------------------|---|
| Cheilanthes austrotenuifolia | B |
|------------------------------|---|

ASPLENIACEAE

| | |
|------------------------|---|
| Pleurosorus rutifolius | K |
|------------------------|---|

GYMNOSPERMS

ZAMIACEAE

| | |
|--------------------|---|
| Macrozamia riedlei | B |
|--------------------|---|

PINACEAE

| | |
|------------------|---|
| * Pinus pinaster | B |
|------------------|---|

CUPRESSACEAE

| | |
|----------------|-------------|
| Callitris roei | Currie n.d. |
|----------------|-------------|

MONOCOTYLEDONS

ALLIACEAE

* *Allium triquetrum* K

AMARYLLIDACEAE

* *Narcissus tazetta* K

ANTHERICACEAE

Agrostocrinum scabrum B
Arthropodium capillipes K
Arthropodium curvipes K
Arthropodium preissii R
Arthropodium sp.A K 1983
Borya constricta K
Borya laciniata K
Borya scirpoidea B
Borya sphaerocephala R
Borya sp. M.G.Corrick 8410 12.10.82
Caesia alfordii (ms). R
Caesia micrantha B
Chamaescilla corymbosa R
Chamaescilla corymbosa var. *corymbosa* K 83
Chamaescilla spiralis B
Corynotheca micrantha K
Laxmannia grandiflora subsp. *grandiflora* R
Laxmannia omnifertilis K
Laxmannia ramosa K
Laxmannia squarrosa B
Sowerbaea laxiflora B
Thysanotus asper K
Thysanotus manglesianus R
Thysanotus multiflorus R
Thysanotus patersonii B
Thysanotus sparteus R
Thysanotus tenellus R
Thysanotus tenuis R P3
Thysanotus thyrsoideus R
Tricoryne elatior B

ARACEAE

* *Zantedeschia aethiopica* K

ASPARAGACEAE

* *Myrsiphyllum asparagoides* K

ASPHODELACEAE

Bulbine semibarbata K

CENTROLEPIDACEAE

| | |
|---------------------------------|---|
| <i>Aphelia brizula</i> | K |
| <i>Aphelia cyperoides</i> | K |
| <i>Aphelia nutans</i> | K |
| <i>Centrolepis aristata</i> | K |
| <i>Centrolepis drummondiana</i> | K |
| <i>Centrolepis ?inconspicua</i> | K |
| <i>Centrolepis glabra</i> | K |
| <i>Centrolepis pilosa</i> | K |
| <i>Centrolepis polygyna</i> | K |

COLCHICACEAE

| | |
|------------------------------|---|
| <i>Burchardia multiflora</i> | R |
| <i>Burchardia umbellata</i> | K |
| <i>Wurmbea dioica</i> | B |
| <i>Wurmbea tenella</i> | K |

CYPERACEAE

| | |
|-----------------------------------|---|
| <i>Carex inversa</i> | K |
| <i>Caustis dioica</i> | K |
| <i>Chorizandra enodis</i> | B |
| * <i>Cyperus tenellus</i> | K |
| <i>Gahnia ancistrophylla</i> | K |
| <i>Gahnia drummondii</i> | K |
| <i>Isolepis cyperoides</i> | K |
| <i>Isolepis marginata</i> | K |
| <i>Isolepis oldfieldiana</i> | K |
| <i>Isolepis stellata</i> | K |
| <i>Lepidosperma ?angustatum</i> | K |
| <i>Lepidosperma longitudinale</i> | K |
| <i>Lepidosperma ?scabrum</i> | K |
| <i>Lepidosperma viscidum</i> | K |
| <i>Lepidosperma sp.</i> | B |
| <i>Mesomelaena preissii</i> | R |
| <i>Mesomelaena stygia</i> | R |
| <i>Schoenus brevisetis</i> | K |
| <i>Schoenus aff. clandestinus</i> | K |
| <i>Schoenus curvifolius</i> | K |
| <i>Schoenus globifer</i> | K |
| <i>Schoenus nanus</i> | K |
| <i>Schoenus odontocarpus</i> | K |
| <i>Schoenus subbulbosus</i> | K |
| <i>Schoenus tenellus</i> | K |

P2

DASYPOGONACEAE

| | |
|---------------------------|---|
| <i>Chamaexeros serra</i> | B |
| <i>Lomandra collina</i> | K |
| <i>Lomandra effusa</i> | K |
| <i>Lomandra micrantha</i> | K |
| <i>Lomandra mucronata</i> | K |
| <i>Lomandra purpurea</i> | K |

HAEMODORACEAE

| | |
|---|---|
| <i>Anigozanthos bicolor</i> ssp. <i>exstans</i> | K |
| <i>Anigozanthos humilis</i> subsp. <i>humilis</i> | R |
| <i>Conostylis aculeata</i> ssp. <i>bromelioides</i> | K |
| <i>Conostylis petrophiloides</i> | R |
| <i>Conostylis serrulata</i> | K |
| <i>Conostylis setigera</i> | R |
| <i>Haemodorum discolor</i> | R |
| <i>Haemodorum simplex</i> | R |
| <i>Haemodorum sparsiflorum</i> | K |
| <i>Haemodorum spicatum</i> | K |
| <i>Tribonanthes longipetala</i> | R |
| <i>Tribonanthes violacea</i> | K |

HYDATELLACEAE

| | |
|------------------------------|---|
| <i>Trithuria bibracteata</i> | K |
| <i>Trithuria submersa</i> | K |

HYPOXIDACEAE

| | |
|-----------------------------|---|
| <i>Hypoxis glabella</i> | K |
| <i>Hypoxis occidentalis</i> | K |

IRIDACEAE

| | |
|--------------------------------|---|
| * <i>Chasmanthe floribunda</i> | K |
| * <i>Freesia leichtlinii</i> | K |
| * <i>Gynandriris setifolia</i> | K |
| * <i>Homeria flaccida</i> | K |
| <i>Orthrosanthus laxus</i> | B |
| <i>Patersonia juncea</i> | B |
| <i>Patersonia occidentalis</i> | B |
| * <i>Romulea rosea</i> | K |

JUNCACEAE

| | |
|----------------------------|---|
| <i>Juncus bufonius</i> | K |
| * <i>Juncus capitatus</i> | K |
| <i>Juncus ?pauciflorus</i> | K |
| <i>Juncus pallidus</i> | K |
| <i>Luzula meridionalis</i> | |

JUNCAGINACEAE

| | |
|-------------------------------|---|
| <i>Triglochin calcitrapa</i> | K |
| <i>Triglochin centrocarpa</i> | K |
| <i>Triglochin procera</i> | K |

ORCHIDACEAE

| | |
|------------------------------|--------------------------|
| <i>Burnettia nigricans</i> | B |
| <i>Caladenia cairnsiana</i> | K |
| <i>Caladenia denticulata</i> | B |
| <i>Caladenia dimidia</i> | A.S.George 11054 29.9.71 |
| <i>Caladenia discoidea</i> | R |
| <i>Caladenia falcata</i> | B |
| <i>Caladenia filifera</i> | K |

| | | |
|--|---|---|
| <i>Caladenia flava</i> | B | |
| <i>Caladenia footeana</i> | K | |
| <i>Caladenia hirta</i> subsp. <i>rosea</i> | K | |
| <i>Caladenia integra</i> | R | R |
| <i>Caladenia latifolia</i> | B | |
| <i>Caladenia longicauda</i> subsp. <i>longicauda</i> | B | |
| <i>Caladenia longicauda</i> subsp. <i>eminens</i> | B | |
| <i>Caladenia longiclavata</i> | B | |
| <i>Caladenia macrostylis</i> | R | |
| <i>Caladenia marginata</i> | K | |
| <i>Caladenia ?nana</i> | k | |
| <i>Caladenia reptans</i> | R | |
| <i>Caladenia saccharata</i> | B | |
| <i>Caladenia uliginosa</i> subsp. <i>candicans</i> | R | |
| <i>Caladenia uliginosa</i> subsp. <i>uliginosa</i> | R | |
| <i>Caladenia varians</i> subsp. <i>talbotii</i> | R | |
| <i>Caladenia xantha</i> | B | |
| <i>Calochilus robertsonii</i> | R | |
| <i>Calochilus</i> aff. <i>robertsonii</i> | R | |
| <i>Cyanicula deformis</i> | B | |
| <i>Cyanicula gemmata</i> | R | |
| <i>Cyanicula sericea</i> | R | |
| <i>Cyrtostylis huegelii</i> | B | |
| <i>Diuris</i> aff. <i>corymbosa</i> | B | |
| <i>Diuris laxiflora</i> | R | |
| <i>Diuris setacea</i> | R | |
| <i>Drakaea</i> sp. | K | |
| <i>Drakonorchis barbarossa</i> | R | |
| <i>Elythranthera brunonis</i> | B | |
| <i>Elythranthera emarginata</i> | R | |
| <i>Eriochilus dilatatus</i> | B | |
| <i>Leporella fimbriata</i> | B | |
| <i>Leptoceras menziesii</i> | R | |
| <i>Lyperanthus serratus</i> | R | |
| <i>Microtis alba</i> | K | |
| <i>Microtis media</i> | K | |
| * <i>Monadenia bracteata</i> | R | |
| <i>Paracaleana nigrita</i> | R | |
| <i>Prasophyllum cyphochilum</i> | R | |
| <i>Prasophyllum ringens</i> | K | |
| <i>Prasophyllum sargentii</i> | R | |
| <i>Pterostylis aspera</i> | R | |
| <i>Pterostylis barbata</i> | B | |
| <i>Pterostylis</i> aff. <i>nana</i> | B | |
| <i>Pterostylis recurva</i> | B | |
| <i>Pterostylis</i> aff. <i>rufa</i> | R | |
| <i>Pterostylis sargentii</i> | R | |
| <i>Pterostylis sanguinea</i> | B | |
| <i>Spiculaea ciliata</i> | B | |
| <i>Thelymitra azurea</i> | B | |
| <i>Thelymitra antennifera</i> | B | |
| <i>Thelymitra benthamiana</i> | R | |
| <i>Thelymitra canaliculata</i> | K | |
| <i>Thelymitra crinita</i> | R | |
| <i>Thelymitra macrophylla</i> | R | |
| <i>Thelymitra pauciflora</i> | K | |
| <i>Thelymitra spiralis</i> | K | |
| <i>Thelymitra villosa</i> | R | |

PHILYDRACEAE

Philydrella pygmaea B

PHORMIACEAE

Dianella revoluta var. revoluta K
 Dianella revoluta var. divaricata R
 Dianella revoluta var. breviculmis K
 Stypandra glauca R

POACEAE

Agrostis avenacea K
 * Aira cupaniana K
 Amphibromus neesii K
 Amphipogon strictus K
 Amphipogon turbinatus K
 Aristida ?contorta K
 * Avena barbata K
 * Avena fatua A
 * Avena sativa K
 * Briza maxima K
 * Briza minor K
 * Bromus diandrus K
 Cymbopogon obtectus K
 * Cynodon dactylon K
 Danthonia caespitosa K
 Danthonia setacea K
 * Digitaria sanguinalis K
 * Ehrbarta longiflora K
 * Hordeum leporinum K
 * Lolium multiflorum K
 Neurachne alopecuroidea B
 * Pentaschistis airoides K
 * Periballia minuta K 83
 * Poa annua K
 Poa drummondiana K
 Poa ?serpentum K
 Stipa compressa K
 Stipa elegantissima K
 Stipa macalpinei K
 Stipa trichophylla K
 Themeda australis K
 * Vulpia myuros K

RESTIONACEAE

Harperia lateriflora K
 Hypolaena exsulca K
 Lepidobolus chaetocephalus K
 Lepidobolus preissianus R
 Lepyrodia sp. B
 Loxocarya aspera (ms) K
 Loxocarya fasciculata K
 Loxocarya flexuosa K
 Lyginia barbata K
 Restio megalotheca K
 Restio sphacelatus K

Restio sp.221 R

XANTHORRHOACEAE

Xanthorrhoea drummondii B
Xanthorrhoea preissii R

ZANNICHELLIACEAE

Lepilaena australis

DICOTYLEDONS

AMARANTHACEAE

Ptilotus declinatus B
Ptilotus drummondii K
Ptilotus humilis var. humilis R
Ptilotus manglesii R
Ptilotus polystachyus R
Ptilotus stirlingii R

APIACEAE

Daucus glochidiatus K
Eryngium pinnatifidum R
Homalosciadium homalocarpum K
Hydrocotyle alata K
Hydrocotyle callicarpa K
Hydrocotyle diantha K
Hydrocotyle pilifera var. glabrata
Hydrocotyle rugulosa
Trachymene cyanopetala B
Trachymene ornata B
Trachymene pilosa B
Xanthosia atkinsoniana ssp. nov. B
Xanthosia candida K
Xanthosia ciliata K
Xanthosia huegelii K

ASTERACEAE

Actinobole uliginosum K
Angianthus tomentosus K
* Arctotheca calendula K
Asteridea nivea R
Blennospora drummondii K
Brachycome ?glandulosa K
Brachycome iberidifolia R
Brachycome perpusilla K
Brachycome pusilla K
Brachycome sp. D.Rose 211 R
Calocephalus angianthoides K
* Carduus pycnocephalus K
* Centaurea melitensis B
Ceratogyne obionoides K
Chrysocephalum aff. semipapposum R
* Cirsium vulgare K
Cotula australis K

| | |
|--------------------------------|----------------------------|
| * Cotula bipinnata | K |
| Cotula coronopifolia | K |
| Cotula cotuloides | K |
| Cotula drummondii | K |
| Craspedia pleiocephala | R |
| Craspedia sp.A D.Rose 148 | R |
| * Dittrichia graveolens | K |
| Gnaphalium sphaericum | K |
| Gnephosis drummondii | N.T.Burbidge 7892 22.12.71 |
| Gnephosis pusilla | K |
| Helichrysum leucopsidium | B |
| Helichrysum lindleyi | R |
| Helichrysum obtusifolium | R |
| Helichrysum semipapposum | K |
| Helipterum corymbosum | K |
| Helipterum laeve | K |
| Helipterum pygmaeum | K |
| Helipterum manglesii | B |
| Helipterum niveum | B |
| Hyalospermum cotula | B |
| Hyalospermum demissum | K |
| * Hypochaeris glabra | K |
| Lagenifera huegelii | B |
| Millotia tenuifolia | S.Paust 15.9.71 |
| Millotia sp. | K |
| Myriocephalus isoetes | K |
| Myriocephalus rhizocephalus | R |
| Olearia elaeophila | K |
| Olearia muricata | K |
| Olearia rudis | K |
| * Osteospermum clandestinum | K |
| Pithocarpa pulchella | K |
| Podolepis canescens | R |
| Podolepis gracilis | R |
| Podolepis lessonii | R |
| Podotrochea angustifolia | R |
| Podotrochea gnaphalioides | K |
| * Pseudognaphalium luteo-album | K |
| Quinetia urvillei | K |
| Rutidosis multiflorus | K |
| Senecio glossanthus | K |
| Senecio hispidulus | K |
| Senecio quadridentatus | K |
| Siloxerus humifusus | K |
| * Sonchus asper | K |
| * Sonchus oleraceus | K |
| Trichocline spathulata | R |
| * Ursinia anthemoides | K |
| * Vellereophyton dealbatum | K |
| Waitzia acuminata | R |
| Waitzia aurea | R |
| Waitzia citrina | R |
| Waitzia paniculata | R |
| Waitzia suaveolens | K |

BORAGINACEAE

Halganina preissiana

R

BRASSICACEAE

- | | |
|-------------------------|---|
| * Brassica tournefortii | K |
| Lepidium rotundum | K |

CAESALPINIACEAE

- | | |
|---------------------|---|
| Labichea lanceolata | K |
|---------------------|---|

CAMPANULACEAE

- | | |
|-----------------------|---|
| Wahlenbergia preissii | B |
|-----------------------|---|

CARYOPHYLLACEAE

- | | |
|-------------------------------|---|
| * Cerastium glomeratum | K |
| * Moenchia erecta | K |
| * Silene gallica var. gallica | K |
| * Petrorhagia prolifera | K |

CASUARINACEAE

- | | |
|----------------------------|---|
| Allocasuarina campestris | R |
| Allocasuarina huegeliana | B |
| Allocasuarina humilis | B |
| Allocasuarina microstachya | R |
| Allocasuarina thuyoides | R |

CHENOPODIACEAE

- | | |
|---------------------|---|
| * Chenopodium album | K |
|---------------------|---|

CHLOANTHACEAE

- | | |
|------------------------|---|
| Chloanthes coccinea | R |
| Dicrastylis reticulata | K |

CLUSIACEAE

- | | |
|---------------------|---|
| Hypericum gramineum | K |
|---------------------|---|

CRASSULACEAE

- | | |
|----------------------|---|
| Crassula colorata | K |
| Crassula decumbens | K |
| Crassula exserta | K |
| Crassula pedicellosa | K |
| * Crassula natans | K |

DILLENACEAE

- | | |
|-------------------------|---|
| Hibbertia acerosa | B |
| Hibbertia commutata | R |
| Hibbertia ?commutata | B |
| Hibbertia enervia | B |
| Hibbertia exasperata | R |
| Hibbertia ?hypericoides | B |
| Hibbertia microphylla | R |
| Hibbertia montana | R |

Hibbertia polystachya

R

DROSERACEAE

Drosera bulbosa

K

Drosera gigantea

A

Drosera glanduligera

B

Drosera leucoblasta

B

Drosera macrantha

B

Drosera menziesii subsp. *menziesii*

R

Drosera platystigma

R

Drosera pycnoblata

K

Drosera stolonifera

K

Drosera subhirtella subsp. *subhirtella*

R

EPACRIDACEAE

Andersonia bifida

R

P2

Andersonia caerulea

B

Andersonia lehmanniana subsp. *pubescens*

K

Andersonia parvifolia

K

Astroloma ciliatum

K

Astroloma compactum

R

Astroloma drummondii

R

Astroloma epacridis

B

Astroloma pallidum

B

Astroloma serratifolium

K

Astroloma serratifolium var. *placidum*

R

Astroloma sp.

K 1987

Leucopogon assimilis

K

Leucopogon conostephioides

K

Leucopogon cuneifolius

K

Leucopogon dielsianus

B

Leucopogon fimbriatus

B

Leucopogon nutans

R

Leucopogon obtusatus

K

Leucopogon oxycedrus

R

Leucopogon pendulus

K

Leucopogon polymorphus

R

Leucopogon sprengelioides

K

Leucopogon sp.D.Rose 028

R

Leucopogon sp.D.Rose 328

R

Leucopogon sp.D.Rose 601

R

Leucopogon sp.

K

Lysinema ciliatum

B

Styphelia tenuiflora

B

EUPHORBIACEAE

Beyeria lechenaultii

K

Beyeria sp.

R

* *Euphorbia peplus*

K

Monotaxis grandiflora

K

Phyllanthus calycinus

B

Poranthera ericoides

R

GENTIANACEAE

| | |
|-------------------------------|---|
| * <i>Centaurium erythraea</i> | B |
| * <i>Cicendia filiformis</i> | K |
| <i>Sebaea ovata</i> | K |

GERANIACEAE

| | |
|-----------------------------|---|
| * <i>Erodium cicutarium</i> | K |
| <i>Erodium cygnorum</i> | K |
| <i>Pelargonium havlasae</i> | K |

GOODENIACEAE

| | |
|--|---|
| <i>Anthotium humile</i> | B |
| <i>Anthotium</i> sp. | R |
| <i>Dampiera coronata</i> | K |
| <i>Dampiera eriocephala</i> | B |
| <i>Dampiera lavandulacea</i> | K |
| <i>Dampiera lindleyi</i> | K |
| <i>Dampiera lindleyi</i> var. <i>angusta</i> | R |
| <i>Dampiera linearis</i> | K |
| <i>Dampiera loranthifolia</i> | R |
| <i>Dampiera obliqua</i> | R |
| <i>Dampiera oligophylla</i> ssp. <i>juncea</i> | K |
| <i>Dampiera preissii</i> | R |
| <i>Dampiera sacculata</i> | B |
| <i>Dampiera wellisiana</i> | K |
| <i>Goodenia affinis</i> | K |
| <i>Goodenia berardiana</i> | K |
| <i>Goodenia caerulea</i> | B |
| <i>Goodenia convexa</i> | K |
| <i>Goodenia filiformis</i> | K |
| <i>Goodenia helmsii</i> | K |
| <i>Goodenia incana</i> | B |
| <i>Goodenia pinifolia</i> | K |
| <i>Goodenia scapigera</i> | B |
| <i>Goodenia watsonii</i> | R |
| <i>Lechenaultia biloba</i> | B |
| <i>Lechenaultia formosa</i> | B |
| <i>Lechenaultia tubiflora</i> | K |
| <i>Scaevola fasciculata</i> | R |
| <i>Scaevola platyphylla</i> | R |
| <i>Scaevola?</i> <i>paludosa</i> | K |
| <i>Scaevola phlebopetala</i> | K |
| <i>Scaevola restiacea</i> | K |
| <i>Velleia cynopotamica</i> | K |
| <i>Velleia trinervis</i> | B |
| <i>Verreauxia reinwardtii</i> | K |

GYROSTEMONACEAE

| | |
|----------------------------|---|
| <i>Gyrostemon subnudus</i> | R |
|----------------------------|---|

HALORAGACEAE

| | |
|----------------------------------|---|
| <i>Glischrocaryon aureum</i> | K |
| <i>Glischrocaryon roei</i> | R |
| <i>Glischrocaryon flavescens</i> | R |

| | | |
|----------------------------|---|----|
| Gonocarpus cordiger | R | |
| Gonocarpus nodulosus | K | |
| LAMIACEAE | | |
| Hemiandra incana | R | |
| Hemiandra pungens | R | |
| Hemigenia drummondii | R | |
| Hemigenia ?platyphylla | R | P4 |
| Hemigenia pritzelii | R | |
| Hemigenia ramosissima | R | |
| Hemigenia sericea | B | |
| Hemigenia ?sericea | B | |
| ?Hemigenia sp.D.Rose 434 | R | |
| Microcorys barbata | R | |
| Microcorys capitata | R | |
| Microcorys aff. exserta | R | |
| Microcorys lenticularis | R | |
| Microcorys aff. loganiacea | R | |
| Microcorys sp. D.Rose 325 | R | |
| * Stachys arvensis | K | |
| LAURACEAE | | |
| Cassytha flava | K | |
| Cassytha glabella | B | |
| Cassytha racemosa | R | |
| LENTIBULARIACEAE | | |
| Utricularia multifida | R | |
| Utricularia tenella | K | |
| LINACEAE | | |
| Linum marginale | K | |
| LOBELIACEAE | | |
| Isotoma hypocrateriformis | B | |
| Isotoma scapigera | R | |
| Lobelia gibbosa | K | |
| Lobelia heterophylla | K | |
| Lobelia rarifolia | R | |
| Lobelia rhombifolia | R | |
| Lobelia rhytidosperra | R | |
| LOGANIACEAE | | |
| Logania campanulata | R | |
| Logania tortuosa | R | |
| Logania sp. | R | |
| Mitrasacme paradoxa | K | |
| LORANTHACEAE | | |
| Amyema miquelii | B | |
| Amyema preissii | K | |
| Nuytsia floribunda | B | |

LYTHRACEAE

* *Lythrum hyssopifolia* K

MIMOSACEAE

Acacia acuminata B
Acacia alata R
Acacia browniana var. *intermedia* K. Atkins 12.12.88
Acacia celastrifolia B
Acacia chrysocephala B
* *Acacia dealbata* K
Acacia deflexa R P2
Acacia dentifera R
Acacia drummondii subsp. *candolleana* K
Acacia drummondii subsp. *drummondii* R
Acacia gilbertii R
Acacia huegelii K
Acacia insolita subsp. *insolita* R
Acacia lateriticola R
Acacia lasiocarpa B
Acacia lasiocarpa var. *sedifolia* R
Acacia leptospermoides subsp. *leptospermoides* R
Acacia microbotrya K
Acacia multispicata R
Acacia pulchella var. *glaberrima* R
Acacia pulchella var. *glaberrima* (small leaf variant) B
Acacia pulchella B
* *Acacia pycnantha* K
Acacia rigida (ms). G.S. Durell 11.5.89
Acacia saligna B
Acacia semitrullata K P3
Acacia sphacelata subsp. *sphacelata* K
Acacia squamata R
Acacia stenoptera R
Acacia subflexuosa subsp. *subflexuosa* R
Acacia willdenowiana R
Acacia sp. (aff. *willdenowiana*) J.M. Brown 228 12.9.85
Acacia sp. D. Rose 551 R
Acacia sp. D. Rose 593 R
Acacia sp. D. Rose 264 R
Acacia sp. G. Keighery 9316 K
Acacia sp. G. Keighery 9277 K

MOLLUGINACEAE

Macarthuria sp. aff. *apetala* R

MYRTACEAE

Baeckea camphorosmae R
Baeckea crispiflora B
Baeckea preissiana R
Beaufortia bracteosa K
Beaufortia incana R
Beaufortia micrantha var. *puberula* R
Callistemon phoeniceus K
Calothamnus planifolius R
Calothamnus preissii R

| | | |
|--|----------------------|---------|
| <i>Calothamnus quadrifidus</i> | B | |
| <i>Calothamnus sanguineus</i> | R | |
| <i>Calytrix angulata</i> | R | |
| <i>Calytrix flavescens</i> | K | |
| <i>Calytrix leschenaultii</i> | R | |
| <i>Calytrix simplex</i> subsp. <i>suboppositifolia</i> | R | |
| <i>Chamelaucium croxfordii</i> (ms) | R | P1 |
| <i>Darwinia thymoides</i> subsp. nov. (Alford & Keighery 64) | K | P4 |
| <i>Darwinia</i> sp. 11 'dryandrensis' (aff. <i>vestita</i>) | B | P4 |
| <i>Eremaea pauciflora</i> | B | |
| <i>Eucalyptus accedens</i> | B | |
| <i>Eucalyptus accedens</i> x <i>incrassata</i> | I.Brooker 9955 | 1988 |
| <i>Eucalyptus albida</i> | K | |
| <i>Eucalyptus aniceps</i> | R | |
| <i>Eucalyptus astringens</i> | R | |
| <i>Eucalyptus calophylla</i> | B | |
| <i>Eucalyptus drummondii</i> | B | |
| <i>Eucalyptus falcata</i> | R | |
| <i>Eucalyptus gardneri</i> | R | |
| <i>Eucalyptus hebetifolia</i> (ms). | I.Brooker 9366 | 27.6.86 |
| <i>Eucalyptus incrassata</i> | R | |
| <i>Eucalyptus latens</i> | | P4 |
| <i>Eucalyptus</i> aff. <i>latens</i> | I.Brooker 9364 | 27.6.86 |
| <i>Eucalyptus loxophleba</i> | R | |
| <i>Eucalyptus marginata</i> | B | |
| <i>Eucalyptus patens</i> | A.R.Main sn. 5.12.56 | |
| <i>Eucalyptus phaenophylla</i> | K | |
| <i>Eucalyptus phaenophylla</i> x <i>wandoo</i> | K | |
| <i>Eucalyptus pluricaulis</i> | C | |
| <i>Eucalyptus pluricaulis</i> subsp. <i>pluricaulis</i> (ms) I.Brooker 9372 | | 27.6.86 |
| <i>Eucalyptus rudis</i> | R | |
| <i>Eucalyptus subangusta</i> x <i>wandoo</i> | K | |
| <i>Eucalyptus uncinata</i> | I.Brooker 9368 | 27.6.86 |
| <i>Eucalyptus wandoo</i> | R | |
| <i>Hypocalymma angustifolium</i> | B | |
| <i>Kunzea micrantha</i> | R | |
| <i>Kunzea micromera</i> | R | |
| <i>Kunzea preissiana</i> | R | |
| <i>Kunzea ?recurva</i> | K | |
| <i>Kunzea</i> aff. <i>montana</i> | K | |
| <i>Leptospermum erubescens</i> | B | |
| <i>Leptospermum spinescens</i> | B | |
| <i>Melaleuca acuminata</i> | R | |
| <i>Melaleuca cardiophylla</i> | R | |
| <i>Melaleuca haplantha</i> | C | |
| <i>Melaleuca incana</i> | R | |
| <i>Melaleuca platycalyx</i> | K | |
| <i>Melaleuca radula</i> | R | |
| <i>Melaleuca scabra</i> | B | |
| <i>Melaleuca seriata</i> | R | |
| <i>Melaleuca seriata</i> / <i>scabra</i> group | R | |
| <i>Melaleuca subtrigona</i> | K | |
| <i>Melaleuca uncinata</i> | B | |
| <i>Melaleuca</i> sp. | R | |
| <i>Regelia inops</i> | K | |
| <i>Rinzia crassifolia</i> | R | P3 |
| <i>Rinzia fumana</i> | K | |
| <i>Rinzia</i> sp. | K | |

| | |
|---|---|
| <i>Verticordia acerosa</i> | R |
| <i>Verticordia densiflora</i> | R |
| <i>Verticordia eriocephala</i> | C |
| <i>Verticordia huegelii</i> | R |
| <i>Verticordia insignis</i> | R |
| <i>Verticordia pennigera</i> | R |
| <i>Verticordia serrata</i> | R |
| <i>Verticordia tumida</i> subsp. <i>therogana</i> | R |
| <i>Verticordia</i> sp. Rose 592 | |

OLACACEAE

| | |
|-------------------------|---|
| <i>Oxal benthamiana</i> | B |
|-------------------------|---|

OROBANCHACEAE

| | |
|--------------------------|---|
| * <i>Orobanche minor</i> | B |
|--------------------------|---|

OXALIDACEAE

| | |
|----------------------------|---|
| <i>Oxalis perennans</i> | K |
| * <i>Oxalis pes-caprae</i> | K |
| * <i>Oxalis purpurea</i> | K |

PAPILIONACEAE

| | |
|---------------------------------------|---|
| <i>Bossiaea eriocarpa</i> | B |
| <i>Bossiaea peduncularis</i> | R |
| <i>Bossiaea spinescens</i> | K |
| <i>Chorizema aciculare</i> | B |
| <i>Chorizema dicksonii</i> | R |
| <i>Daviesia angulata</i> | K |
| <i>Daviesia cardiophylla</i> | K |
| <i>Daviesia cordata</i> | R |
| <i>Daviesia costata</i> | R |
| <i>Daviesia decurrens</i> | B |
| <i>Daviesia flexuosa</i> | R |
| <i>Daviesia hakeoides</i> | B |
| <i>Daviesia</i> cf. <i>incrassata</i> | R |
| <i>Daviesia longifolia</i> | R |
| <i>Daviesia nudiflora</i> | K |
| <i>Daviesia rhombifolia</i> | B |
| <i>Daviesia</i> ? <i>triflora</i> | K |
| <i>Daviesia trigonophylla</i> | K |
| <i>Daviesia</i> sp. D.Rose 071 | R |
| <i>Dillwynia</i> sp. D.Rose 152 | B |
| <i>Eutaxia</i> sp. D.Rose 382 | R |
| <i>Gastrolobium bilobum</i> | K |
| <i>Gastrolobium calycinum</i> | B |
| <i>Gastrolobium microcarpum</i> | R |
| <i>Gastrolobium parviflorum</i> | K |
| <i>Gastrolobium spathulatum</i> | R |
| <i>Gastrolobium spinosum</i> | B |
| <i>Gastrolobium trilobum</i> | R |
| <i>Gastrolobium</i> ? <i>villosum</i> | K |
| <i>Gompholobium confertum</i> | R |
| <i>Gompholobium burtonioides</i> | R |
| <i>Gompholobium knightianum</i> | R |
| <i>Gompholobium marginatum</i> | B |

| | | |
|---------------------------------------|-------------------------------|----|
| Gompholobium preissii | R | |
| Gompholobium scabrum | B | |
| Gompholobium tomentosum | B | |
| Gompholobium venustum | R | |
| Goodia lotifolia | B | |
| Hovea chorizemifolia | B | |
| Hovea trisperma | B | |
| Isotropis cuneifolia | B | |
| Isotropis drummondii | R | |
| Jacksonia alata | R | |
| Jacksonia condensata | K | |
| Jacksonia floribunda | R | |
| Jacksonia furcellata | K | |
| Jacksonia racemosa | R | |
| Jacksonia restioides | R | |
| Jacksonia sternbergiana | R | |
| Jacksonia sp. 'Boyagin, Foreman 1068' | E.C.Nelson ANU 16908 10.11.72 | |
| Jacksonia sp. (Rose 412) | R | |
| Kennedia coccinea | R | |
| Kennedia prostrata | B | |
| * Medicago polymorpha | K | |
| Mirbelia dilatata | B | |
| Mirbelia floribunda | R | |
| Mirbelia spinosa | R | |
| Nemcia capitata | R | |
| Nemcia carinata | K | |
| Nemcia hookeri | R | |
| Nemcia obovata | R | |
| Nemcia stipularis | R | P4 |
| Nemcia sp. | R | |
| Sphaerolobium medium | K | |
| Sphaerolobium sp. | R | |
| * Trifolium campestre | K | |
| * Trifolium glomeratum | K | |
| * Trifolium subterraneum | K | |

PITTOSPORACEAE

| | | |
|--|---|--|
| Billardiera bicolor | R | |
| Billardiera coriacea | R | |
| Billardiera erubescens | R | |
| Billardiera variifolia | R | |
| Billardiera sp. D.Rose 397 aff. drummondiana | B | |
| Cheiranthra filifolia | K | |
| Sollya heterophylla | R | |

PLANTAGINACEAE

Plantago debilis

POLYGALACEAE

| | | |
|----------------------|---|--|
| Comesperma calymega | R | |
| Comesperma scoparium | R | |
| Comesperma virgatum | R | |
| Comesperma volubile | R | |

POLYGONACEAE

| | |
|------------------------|---|
| Muehlenbeckia adpressa | B |
| Polygonum prostratum | R |

PORTULACACEAE

| | |
|-------------------------|---|
| Calandrinia calyptata | K |
| Calandrinia granulifera | K |

PRIMULACEAE

| | |
|----------------------|---|
| * Anagallis arvensis | K |
|----------------------|---|

PROTEACEAE

| | |
|---|--------------------------|
| Adenanthos cygnorum | B |
| Banksia grandis | R |
| Banksia sphaerocarpa | B |
| Banksia sphaerocarpa var. sphaerocarpa | K |
| Conospermum amoenum subsp. cuneatum | B |
| Conospermum distichum | B |
| Conospermum filifolium subsp. filifolium (ms) | K 83 |
| Conospermum floribundum | B |
| Conospermum incurvum | K |
| Conospermum stoechadis | C |
| Dryandra arctotidis | C |
| Dryandra armata | B |
| Dryandra bipinnatifida | B |
| Dryandra cynaroides | R P2 |
| Dryandra drummondii | B |
| Dryandra erythrocephala | K |
| Dryandra aff. hewardiana (A.S.G. sp. 1) | J.Beard 8140 18.10.77 P2 |
| Dryandra ?ferruginea | K |
| Dryandra fraseri | B |
| Dryandra nivea | B |
| Dryandra aff. nivea ASG sp. 28 | B |
| Dryandra nobilis | B |
| Dryandra proteoides | B |
| Dryandra aff. seneciifolia ASG sp. 4 | |
| Dryandra sessilis | B |
| Dryandra squarrosa | R |
| Dryandra stuposa | B |
| Dryandra subpinnatifida | B P3 |
| Grevillea acerosa | R |
| Grevillea bipinnatifida | C |
| Grevillea crowleyi (ms) | R P1 |
| Grevillea hookeriana | R |
| Grevillea integrifolia subsp. integrifolia | R |
| Grevillea leptobotrya | R |
| Grevillea pulchella | K |
| Grevillea tenuiflora | B |
| Hakea baxteri | B |
| Hakea erinacea | R |
| Hakea gilbertii | R |
| Hakea incrassata | B |
| Hakea lehmanniana | K |
| Hakea lissocarpha | B |
| Hakea prostrata | B |

| | | |
|---|---------------------------|----|
| Hakea ruscifolia | R | |
| Hakea trifurcata | B | |
| Hakea undulata | B | |
| Hakca sp. D.Rose 594 | R | |
| Isopogon divergens | K | |
| Isopogon dubius | B | |
| Isopogon teretifolius | R | |
| Isopogon sp. | K | |
| Lambertia ilicifolia | R | |
| Persoonia elliptica | R | |
| Persoonia hakeiformis | R | P2 |
| Persoonia quinquenervis | C | |
| Persoonia striata | R | |
| Persoonia trinervis | R | |
| Petrophile brevifolia | R | |
| Petrophile circinata | R | |
| Petrophile divaricata | B | |
| Petrophile ericifolia | B | |
| Petrophile heterophylla | B | |
| Petrophile longifolia | B | |
| Petrophile macrostachya | K | |
| Petrophile media | R | |
| Petrophile seminuda | D.B.Foreman 1105 20.11.85 | |
| Petrophile serruriae | B | |
| Petrophile striata | R | |
| Petrophile squamata | B | |
| Synaphea cuneata (ms). | K | |
| Synaphea petiolaris | B | |
| RAFFLESACEAE | | |
| Pilostyles hamiltonii | K | |
| RHAMNACEAE | | |
| Cryptandra arbutiflora | K | |
| Cryptandra glabriflora | K | |
| Cryptandra pungens | B | |
| Cryptandra sp. D.Rose 065 | B | |
| Cryptandra sp. D.Rose 541 | R | |
| Cryptandra sp. 8 | R | |
| Cryptandra sp. | K | |
| Spyridium tridentatum | R | |
| Trymalium angustifolium | K | |
| Trymalium ledifolium var. ledifolium | R | |
| Trymalium ledifolium var. rosmarinifolium | K | |
| Trymalium myrtillus | K | |
| Trymalium wichurae | R | |
| RUBIACEAE | | |
| * Galium divaricatum | K | |
| * Galium murale | K | |
| Opercularia apiciflora | R | |
| Opercularia vaginata | B | |
| RUTACEAE | | |
| Asterolasia pallida | B | |

| | |
|--|--------|
| <i>Asterolasia squamuligera</i> | B |
| <i>Boronia busselliana</i> | R |
| <i>Boronia capitata</i> subsp. <i>clavata</i> | B |
| <i>Boronia crenulata</i> | K |
| <i>Boronia cymosa</i> | K |
| <i>Boronia purdieana</i> | R |
| <i>Boronia ramosa</i> subsp. <i>anethifolia</i> | R |
| <i>Boronia scabra</i> | R |
| <i>Boronia</i> sp. | K 1983 |
| <i>Diplolaena microcephala</i> | K |
| <i>Eriostemon spicatus</i> | K |
| SANTALACEAE | |
| <i>Choretrum glomeratum</i> | K |
| <i>Exocarpos sparteus</i> | K |
| <i>Leptomeria lehmannii</i> | K |
| <i>Leptomeria pauciflora</i> | R |
| <i>Leptomeria spinosa</i> | R |
| <i>Santalum acuminatum</i> | B |
| <i>Santalum murrayanum</i> | B |
| <i>Santalum spicatum</i> | B |
| SAPINDACEAE | |
| <i>Dodonaea concinna</i> | K |
| <i>Dodonaea bursariifolia</i> | R |
| <i>Dodonaea humifusa</i> | R |
| <i>Dodonaea pinifolia</i> | R |
| <i>Dodonaea viscosa</i> subsp. <i>spathulata</i> | R |
| SCROPHULARIACEAE | |
| * <i>Bellardia trixago</i> | R |
| <i>Glossostigma drummondii</i> | K |
| <i>Gratiola peruviana</i> | K |
| <i>Limnosella australis</i> | K |
| * <i>Parentucellia latifolia</i> | K |
| * <i>Parentucellia viscosa</i> | K |
| * <i>Veronica arvensis</i> | K |
| SOLANACEAE | |
| * <i>Solanum nigrum</i> | K |
| STACKHOUSIACEAE | |
| <i>Stackhousia monogyna</i> | B |
| <i>Stackhousia scoparia</i> | R |
| <i>Tripterococcus brunonis</i> | K |
| STERCULIACEAE | |
| <i>Lasiopetalum floribundum</i> | K |
| <i>Lasiopetalum microcardium</i> | R |
| <i>Thomasia foliosa</i> | B |
| <i>Thomasia macrocalyx</i> | R |

STYLIDIACEAE

| | |
|--|---|
| <i>Levenhookia dubia</i> | K |
| <i>Levenhookia leptantha</i> | K |
| <i>Levenhookia pusilla</i> | R |
| <i>Levenhookia stipitata</i> | B |
| <i>Stylidium adpressum</i> | R |
| <i>Stylidium affine</i> | K |
| <i>Stylidium amoenum</i> | R |
| <i>Stylidium breviscapum</i> | B |
| <i>Stylidium brunonianum</i> | R |
| <i>Stylidium bulbiferum</i> | R |
| <i>Stylidium calcaratum</i> | B |
| <i>Stylidium caricifolium</i> subsp. <i>caricifolium</i> | R |
| <i>Stylidium ciliatum</i> | |
| <i>Stylidium ecorne</i> | R |
| <i>Stylidium emarginatum</i> subsp. <i>emarginatum</i> | R |
| <i>Stylidium falcatum</i> | R |
| <i>Stylidium hirsutum</i> | R |
| <i>Stylidium hispidum</i> | K |
| <i>Stylidium inundatum</i> | R |
| <i>Stylidium leptophyllum</i> | R |
| <i>Stylidium lineatum</i> | R |
| <i>Stylidium petiolare</i> | R |
| <i>Stylidium piliferum</i> | B |
| <i>Stylidium pycnostachyum</i> | R |
| <i>Stylidium repens</i> var. <i>repens</i> | R |
| <i>Stylidium repens</i> var. <i>sacculatum</i> | R |
| <i>Stylidium roseo-alatum</i> | R |
| <i>Stylidium schoenoides</i> | R |
| <i>Stylidium squamellosum</i> | R |
| <i>Stylidium uniflorum</i> | R |

THYMELAEACEAE

| | |
|-----------------------------|---|
| <i>Pimelea argentea</i> | K |
| <i>Pimelea ciliata</i> | R |
| <i>Pimelea imbricata</i> | B |
| <i>Pimelea spectabilis</i> | R |
| <i>Pimelea suaveolens</i> | R |
| <i>Pimelea sulphurea</i> | K |
| <i>Pimelea sylvestris</i> | R |
| <i>Pimelea</i> sp. Rose 326 | R |

TREMADRACEAE

| | |
|--------------------------------|---|
| <i>Platytheca galioides</i> | R |
| <i>Tetratheca hispidissima</i> | R |
| <i>Tetratheca setigera</i> | R |
| <i>Tetratheca virgata</i> | R |

URTICACEAE

| | |
|---------------------------|---|
| <i>Parietaria debilis</i> | K |
|---------------------------|---|

VIOLACEAE

| | |
|--|---|
| <i>Hybanthus floribundus</i> subsp. <i>floribundus</i> | R |
|--|---|

APPENDIX 2
MUIR VEGETATION DESCRIPTIONS

Eucalyptus accedens (powder bark wandoo) Woodland

- Smith 9** Low Woodland A over Dwarf Scrub D (Low Heath D)
- Smith 13** Low Woodland A over *Gastrolobium microcarpum* Open Low Scrub B over Dwarf Scrub D (Low Heath D in places)
- Harris 2** Low Woodland A over *Gastrolobium trilobum* Heath B
- Dryandra 3** Low Forest A/Low Woodland A over *Gastrolobium microcarpum* Heath B

Eucalyptus astringens (brown mallet) Low Forest

- Smith 5** Low Forest A
- Penny 4** regeneration - Low Forest B/Dense Low Forest B over *Gastrolobium parviflorum* Heath B
- Penny 6** Low Forest A
- Candy 2** Low Woodland A

Eucalyptuss calophylla (marri) Woodland

- Peters 13** Low Woodland A (Woodland) over Scrub/Thicket patchy over Dwarf Scrub D (scattered *Eucalyptus accedens*)
- Smith 10** Low Woodland A (Woodland) over Scrub over Open Low Scrub A over Dwarf Scrub D
- Dryandra 4** Low woodland A/Woodland over Scrub (Thicket) patchy over Low Scrub B over Dwarf Scrub D (area of *Leptospermum erubescens* Heath A)
- Harris 1** Low Woodland A over Scrub over *Gastrolobium parviflorum* Low Scrub B over Dwarf Scrub D
- Candy 5** Low Woodland A over Scrub over Dwarf Scrub D/Low Heath D (patchy)

***Eucalyptus loxophleba* (York gum) Woodland**

- Peters 12** Low Forest A over *Acacia acuminata* Open Low Woodland B/Low Woodland B in places.
- Skelton 2** Low Woodland A over *Acacia acuminata* Low Forest B
- Smith 14** Low Forest A (Low Woodland A) over *Acacia acuminata* Low Forest B/Low Woodland B patchy
- Penny 7** Low Woodland A (scattered *Eucalyptus wandoo*) over Open Low Scrub A over Open Dwarf Scrub D (area of *Loxocarya* Open Low Sedges)

Lateritic Plateau Woodlands

1. Tall Kwongan understorey

- Skelton 10** Open Low Woodland A [Ea(m)] over Thicket (3m) patchy over Dwarf Scrub D
- Dryandra 1** Open Low Woodland A [Eac] over Thicket over Dwarf Scrub C
- Dryandra 2** Low Woodland A [Em(a)] over Scrub/Thicket over Dwarf Scrub C
- Penny 5** Low Woodland A/Open Low Woodland A (patchy) [Ea] over Heath A to Dense Heath A in places.

2. *Dryandra squarrosa* understorey

- Peters 3** Open Low Woodland A [Eamw] over Thicket (Scrub) over Open Dwarf Scrub C
- Skelton 8** Low Woodland A [Em(ac)] over Low Scrub B over Dwarf Scrub D
- Skelton 9** Low Woodland A [Em(a)] over Open Scrub/Scrub over Low Scrub B over Dwarf Scrub C
- A25 1** Low Woodland A [Ea(aw)] over Heath A over Dwarf Scrub D in places.

3. *Dryandra sessilis* understorey

Skelton 6 Low Woodland A [Ec(aw)] over Scrub over Low Heath C

Miles 4 Low Woodland A [Eacw] over Scrub over Dwarf Scrub D/Open Low Sedges

4. Low Heath understorey

Peters 2 Open Low Woodland A [Ecm] over Heath C over Open Dwarf Scrub D

Peters 7 Woodland [Eam] over Open Low Scrub A (small areas of Heath A) over Low Heath C over Dwarf Scrub D (patchy)

Skelton 1 Open Low Woodland A [Eacw] over Low Heath C over Dwarf Scrub D in places (scattered shrub mallee)

Skelton 11 Open Low Woodland A [Ecw] over Open Low Scrub A over Low Heath C/Low Heath D (patch Shrub Mallee)

Smith 6 Open Low Woodland A over Open Scrub/Scrub patchy over Heath B over Dwarf Scrub C over Dwarf Scrub D in places

Eucalyptus wandoo (white gum, wandoo) Woodland

Peters 5 Low Woodland A (Low Forest A) over Open Dwarf Scrub C over Open Dwarf Scrub D/Open Low Sedges (scattered *Acacia acuminata* and *Eucalyptus calophylla*)

Peters 9 Low Woodland A over *Gastrolobium microcarpum* Dwarf Scrub C to Low Scrub B over Dwarf Scrub D/Open Low Sedges (scattered *Acacia acuminata* and *Allocasuarina huegeliana*)

Peter 10 Low Forest A

Miles 1 Low Woodland A over Open Low Scrub A over Low Heath D

Miles 2 Low Woodland A over *Gastrolobium microcarpum* Heath A over Open Dwarf Scrub C

- Smith 1** Low Woodland A (Open Low Woodland A) to Woodland over *Acacia acuminata*
Open Low Woodland B over Open Low Sedges (*Borya* Herbs in places)
- Smith 11** Low Woodland A over *Acacia acuminata* Low Woodland B
- Candy 1** Woodland over *Gastrolobium calycinus* Open Low Scrub C over Low Heath D
(scattered *Allocasuarina huegeliana*)
- Candy 3** Low Woodland A over *Acacia acuminata* Open Low Woodland B over Open
Dwarf Scrub D/Open Low Sedges in places
- Harris 5** Low Woodland A over *Gastrolobium parviflorum* Low Scrub A (patchy) over
Dwarf Scrub D in places

***Eucalyptus wandoo* (white gum)/*Allocasuarina huegeliana* (rock sheoak) Low Forest**

- Skelton 4** Low Forest A (*Eucalyptus wandoo* to 14 metres, *Allocasuarina huegeliana* to
6 metres) over *Gastrolobium microcarpum* Heath B in places (scattered *Acacia*
acuminata and *Eucalyptus calophylla*)
- Candy 4** Low Woodland A (*Eucalyptus wandoo*) over Low Forest A/Low Forest B
(*Allocasuarina huegeliana*) (scattered *Acacia acuminata*)

***Allocasuarina huegeliana* (rock sheoak) Low Forest**

- Peters 4** Low Forest A (Dense Low Forest A at edge)
Next to granite rock - *Lepidosperma ?longitudinale*
- Skelton 3** Low Forest A (*Allocasuarina huegeliana* and *Acacia acuminata*) (scattered
Eucalyptus loxophleba)
- Smith 2** Low Forest A (Dense Low Forest A in places) (scattered *Eucalyptus wandoo*)
- Bald Rock 1** Low Forest A
edge next to granite rock - *Lepidosperma* Tall Sedges
(scattered *Eucalyptus calophylla*, *Eucalyptus wandoo*)
- Turner 1** Low Forest A over Open Low Scrub B (patch of *Lepidosperma* Tall Sedges)
(scattered *Eucalyptus wandoo*)

***Acacia acuminata* (jam) Low Forest**

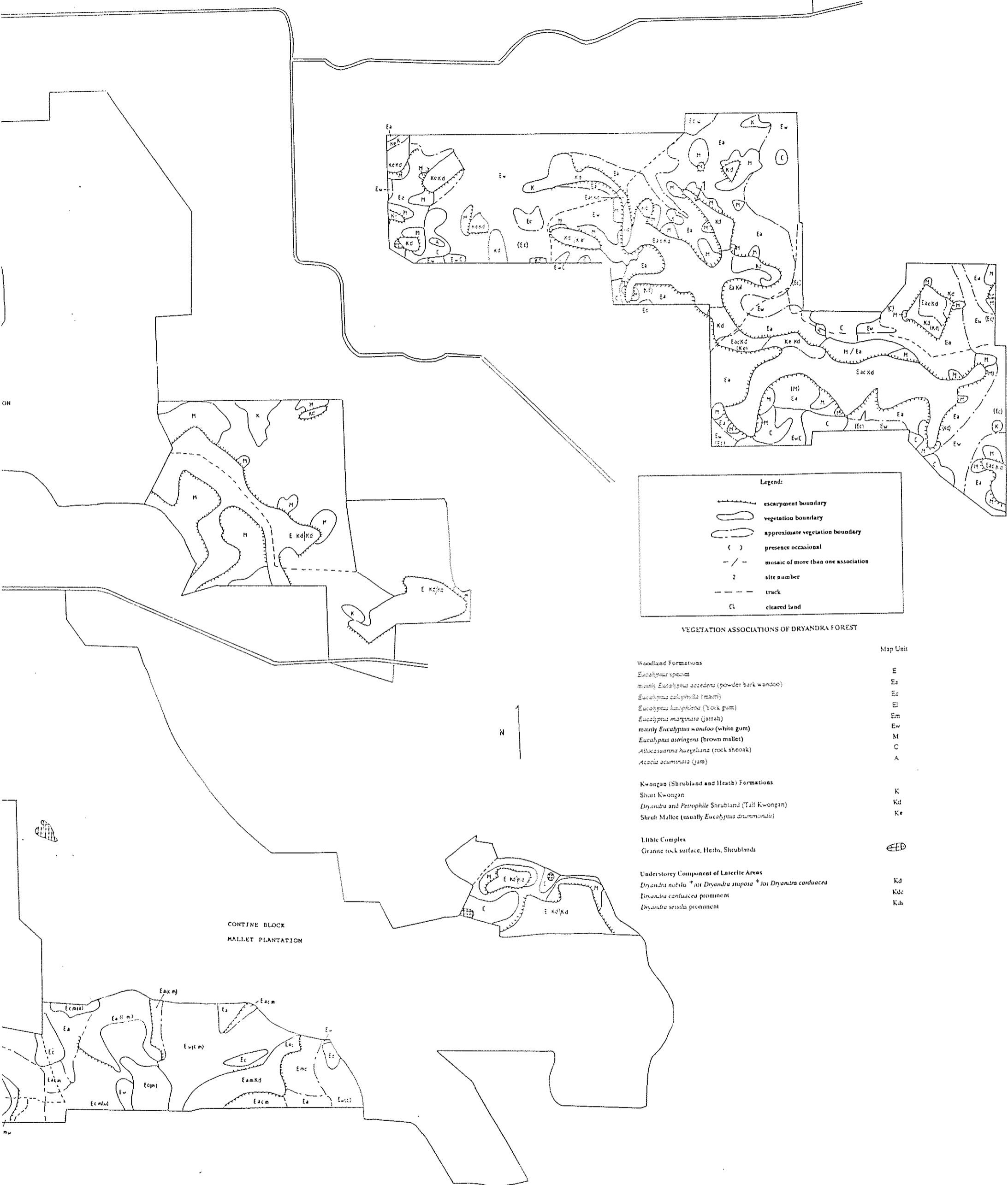
- Miles 3** Low Forest A (scattered *Allocasuarina huegeliana*, *Eucalyptus wandoo*) over Very Open Low Sedges
- Smith 4** Low Forest A (scattered *Allocasuarina huegeliana*, *Eucalyptus wandoo*, mixed shrub species)
- Smith 12** Low Forest B (scattered *Eucalyptus wandoo*)
(patch of *Loxocarya* Open Low Sedges)
- Smith 15** Low Forest B (scattered *Eucalyptus wandoo*, *Allocasuarina huegeliana*)
- Bullock 1** Low Forest A over *Loxocarya* Open Low Sedges in places

Short Kwongan

- Peters 8** Low Heath C occasionally to Low Heath D (Shrub Mallee scattered overall)
- Skelton 5** Very Open Shrub Mallee over Open Low Scrub A over Low Heath C (patchy)
- Smith 3** Very Open Shrub Mallee (patchy) over Open Low Scrub A over Low Heath C
- Smith 8** Heath B over Dwarf Scrub C
- Lol Gray 1** Open Low Scrub B over Low Heath C over Dwarf Scrub D
- Penny 1** Very Open Shrub Mallee over Heath B over Dwarf Scrub D
- Penny 2** Open Shrub Mallee over Heath C over Dwarf Scrub D (scattered *Eucalyptus wandoo*)
- Harris 4** Open Shrub Mallee over Low Heath C/Low Heath D
- Bald Rock 2** Very Open Shrub Mallee over Heath B over Open Dwarf Scrub D to Dwarf Scrub D in places
- Candy 6** Open Shrub Mallee over Low Heath C over Open Dwarf Scrub D

Tall Kwongan

- Peters 6** Very Open Shrub Mallee over Heath A over Dwarf Scrub C/Dwarf Scrub D
(scattered *Eucalyptus accedens* and *Eucalyptus calophylla*)
- Peters 11** Thicket (Scrub in places) over Low Heath C over Open Dwarf Scrub D
- Skelton 7** Heath A over Open Dwarf Scrub C
- Smith 7** Thicket over Dwarf Scrub C in places (scattered shrub mallee)
- Penny 3** Heath A occasionally to Dense Heath A over Open Dwarf Scrub D in places
- Harris 3** Thicket (edge) to Heath A over Open Dwarf Scrub C (scattered shrub mallee in patches)
- Palmer 1** Heath A over Open Dwarf Scrub C



Legend:

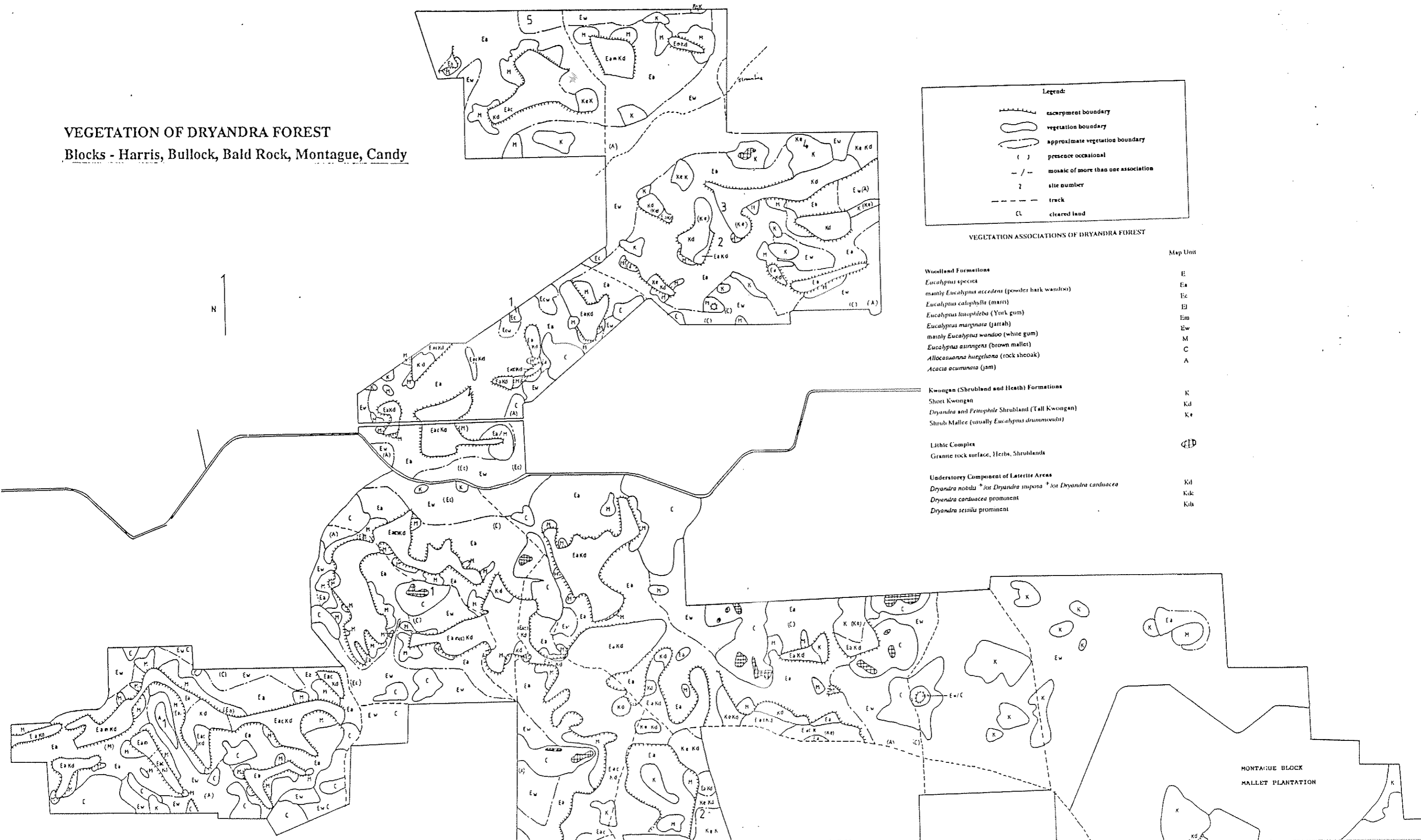
- escarpment boundary
- vegetation boundary
- approximate vegetation boundary
- presence occasional
- mosaic of more than one association
- site number
- track
- cleared land

VEGETATION ASSOCIATIONS OF DRYANDRA FOREST

| | Map Unit |
|---|----------|
| Woodland Formations | |
| <i>Eucalyptus species</i> | E |
| mainly <i>Eucalyptus accedens</i> (powder bark wandoo) | Ea |
| <i>Eucalyptus calophylla</i> (marr) | Ee |
| <i>Eucalyptus lanxiphloea</i> (York gum) | Ei |
| <i>Eucalyptus marginata</i> (jarrab) | Em |
| mainly <i>Eucalyptus wandoo</i> (white gum) | Ew |
| <i>Eucalyptus astringens</i> (brown mallee) | M |
| <i>Allocasuarina huegeliana</i> (rock sheoak) | C |
| <i>Acacia acuminata</i> (jam) | A |
| Kwongan (Shrubland and Heath) Formations | |
| Short Kwongan | K |
| <i>Dryandra</i> and <i>Petrophile</i> Shrubland (Tall Kwongan) | Kd |
| Shrub Mallee (usually <i>Eucalyptus drummondii</i>) | Ke |
| Lithic Complex | |
| Granite rock surface, Herbs, Shrublands | (E)E |
| Understorey Component of Laterite Areas | |
| <i>Dryandra nobilis</i> * or <i>Dryandra stiposa</i> † or <i>Dryandra cordata</i> | Kd |
| <i>Dryandra canthacea</i> prominent | Kdc |
| <i>Dryandra sessilis</i> prominent | Kds |

CONTINE BLOCK
MALLEET PLANTATION

VEGETATION OF DRYANDRA FOREST
Blocks - Harris, Bullock, Bald Rock, Montague, Candy



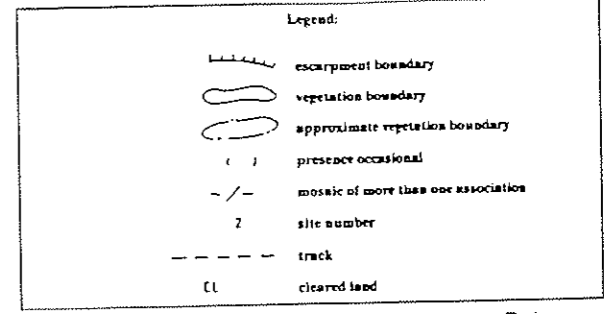
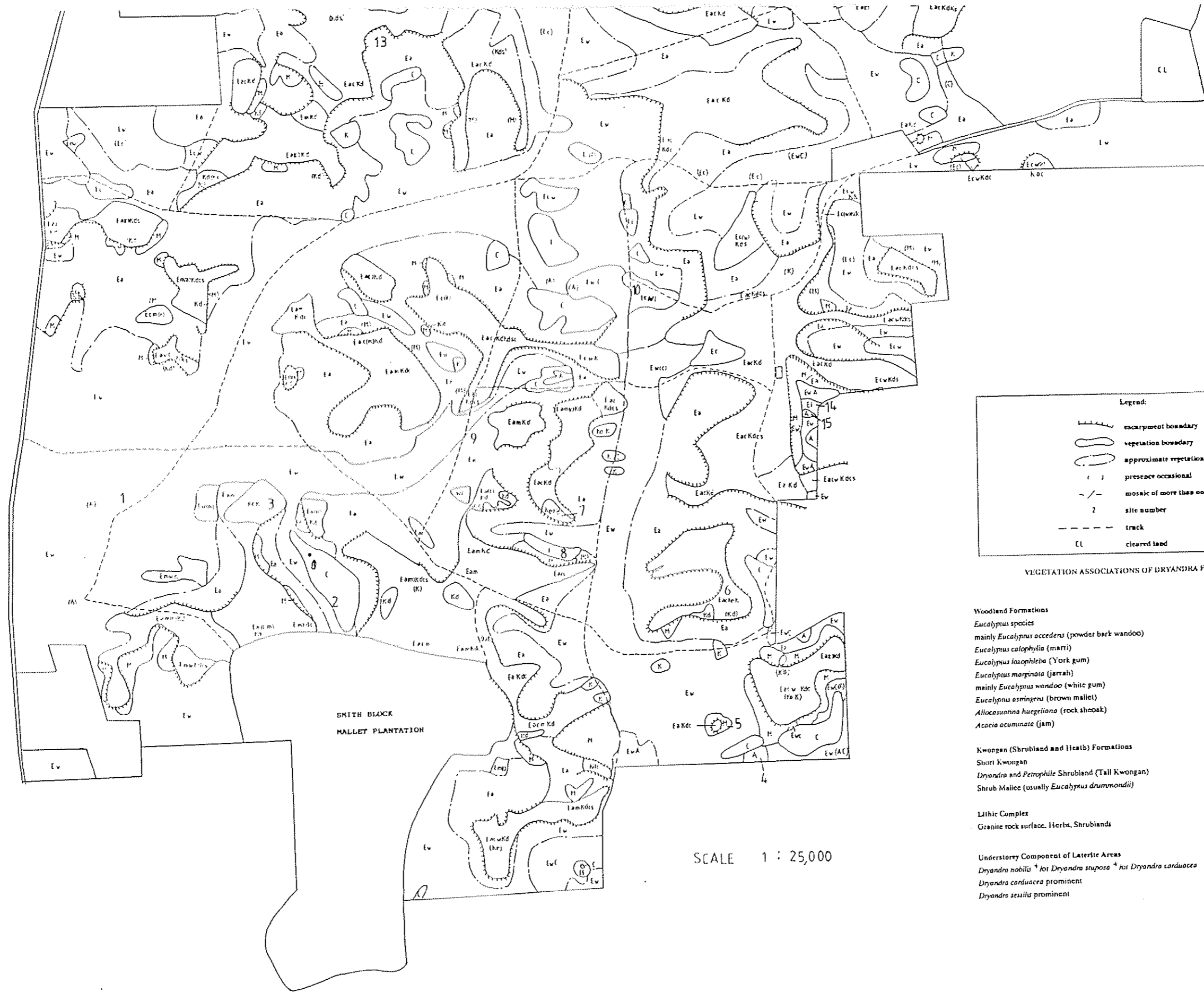
Legend:

- escarpment boundary
- vegetation boundary
- approximate vegetation boundary
- presence occasional
- mosaic of more than one association
- site number
- track
- cleared land

VEGETATION ASSOCIATIONS OF DRYANDRA FOREST

| | Map Unit |
|--|----------|
| Woodland Formations | |
| <i>Eucalyptus</i> species | E |
| mainly <i>Eucalyptus acedens</i> (powder bark wandoo) | Ea |
| <i>Eucalyptus calophylla</i> (marr) | Ee |
| <i>Eucalyptus leuophleba</i> (York gum) | Ei |
| <i>Eucalyptus marginata</i> (jarrah) | Em |
| mainly <i>Eucalyptus wandoo</i> (white gum) | Ew |
| <i>Eucalyptus asurgens</i> (brown mallet) | M |
| <i>Allocasuarina huegeliana</i> (rock sheoak) | C |
| <i>Acacia acuminata</i> (jam) | A |
| Kwongan (Shrubland and Heath) Formations | |
| Short Kwongan | K |
| <i>Dryandra</i> and <i>Pterophle</i> Shrubland (Tall Kwongan) | Kd |
| Shrub Mallee (usually <i>Eucalyptus drummondii</i>) | Ke |
| Lithic Complex | |
| Granite rock surface, Herbs, Shrublands | (C) |
| Understorey Component of Laterite Areas | |
| <i>Dryandra nobilis</i> +/or <i>Dryandra stiposa</i> +/or <i>Dryandra cardiaca</i> | Kd |
| <i>Dryandra cardiaca</i> prominent | Kdk |
| <i>Dryandra sessilis</i> prominent | Kds |

MONTAGUE BLOCK
MALLEE PLANTATION



VEGETATION ASSOCIATIONS OF DRYANDRA FOREST

| | Map Unit |
|---|----------|
| Woodland Formations | |
| <i>Eucalyptus</i> species | E |
| mainly <i>Eucalyptus accedens</i> (powder bark wandoo) | Ea |
| <i>Eucalyptus calophylla</i> (martii) | Ec |
| <i>Eucalyptus lasophleba</i> (York gum) | E |
| <i>Eucalyptus marginata</i> (jarrah) | Em |
| mainly <i>Eucalyptus wandoo</i> (white gum) | Ew |
| <i>Eucalyptus osmingeni</i> (brown mallet) | M |
| <i>Allocasuarina huegeliana</i> (rock sheoak) | C |
| <i>Acacia acuminata</i> (jam) | A |
| Kwongan (Shrubland and Heath) Formations | |
| Short Kwongan | K |
| <i>Dryandra</i> and <i>Pterophloe</i> Shrubland (Tall Kwongan) | Kd |
| Shrub Mallee (usually <i>Eucalyptus drummondii</i>) | Ke |
| Lithic Complex | |
| Granite rock surface, Herbs, Shrublands | |
| Understorey Component of Laterite Areas | |
| <i>Dryandra nobilis</i> * for <i>Dryandra stuposa</i> * for <i>Dryandra corduacea</i> | Kd |
| <i>Dryandra corduacea</i> prominent | Kdc |
| <i>Dryandra sessilis</i> prominent | Kds |

SCALE 1 : 25,000

VEGETATION OF DRYANDRA FOREST

Blocks - Skelton, Miles, Congelin, A24, A25



Legend:

- escarpment boundary
- vegetation boundary
- approximate vegetation boundary
- presence occasional
- mosaic of more than one association
- site number
- track
- cleared land

VEGETATION ASSOCIATIONS OF DRYANDRA FOREST

Woodland Formations

- Eucalyptus* species
- mainly *Eucalyptus accedens* (powder bark wandoo)
- Eucalyptus entophylla* (marril)
- Eucalyptus laeophylla* (Yack gum)
- Eucalyptus marginata* (jarrah)
- mainly *Eucalyptus wandoo* (white gum)
- Eucalyptus aspergens* (brown mallet)
- Allocasuarina huegeliana* (rock sheoak)
- Acacia acuminata* (jam)

Kwongan (Shrubland and Heath) Formations

- Short Kwongan
- Dryandra* and *Pterophylla* Shrubland (Tall Kwongan)
- Shrub Mallee (usually *Eucalyptus drummondii*)

Lithic Complex

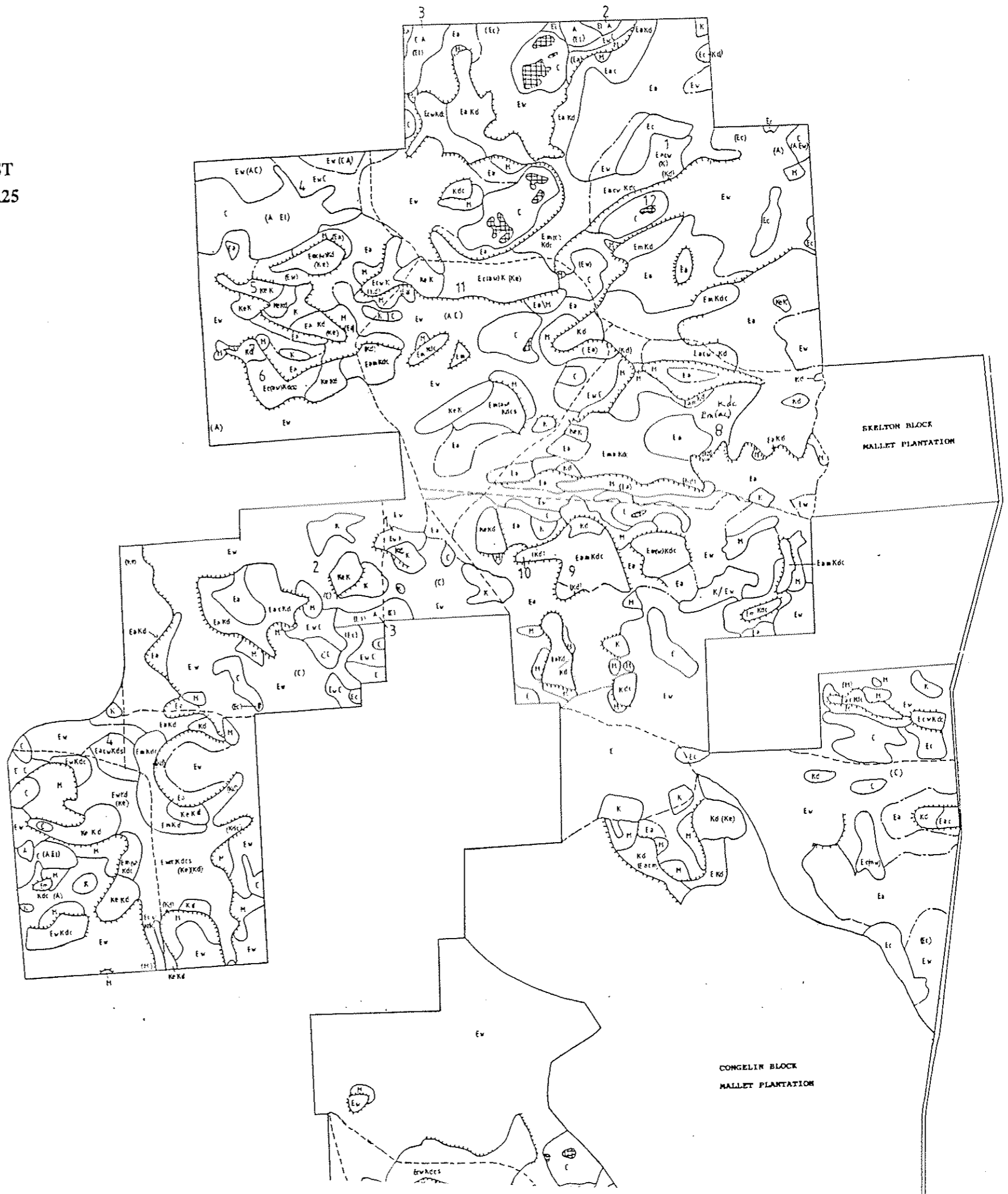
- Granitic rock surface, Herbs, Shrublands

Understorey Component of Laterite Areas

- Dryandra nobilis* * for *Dryandra sspose* * for *Dryandra carduacea*
- Dryandra carduacea* prominent
- Dryandra sessilis* prominent

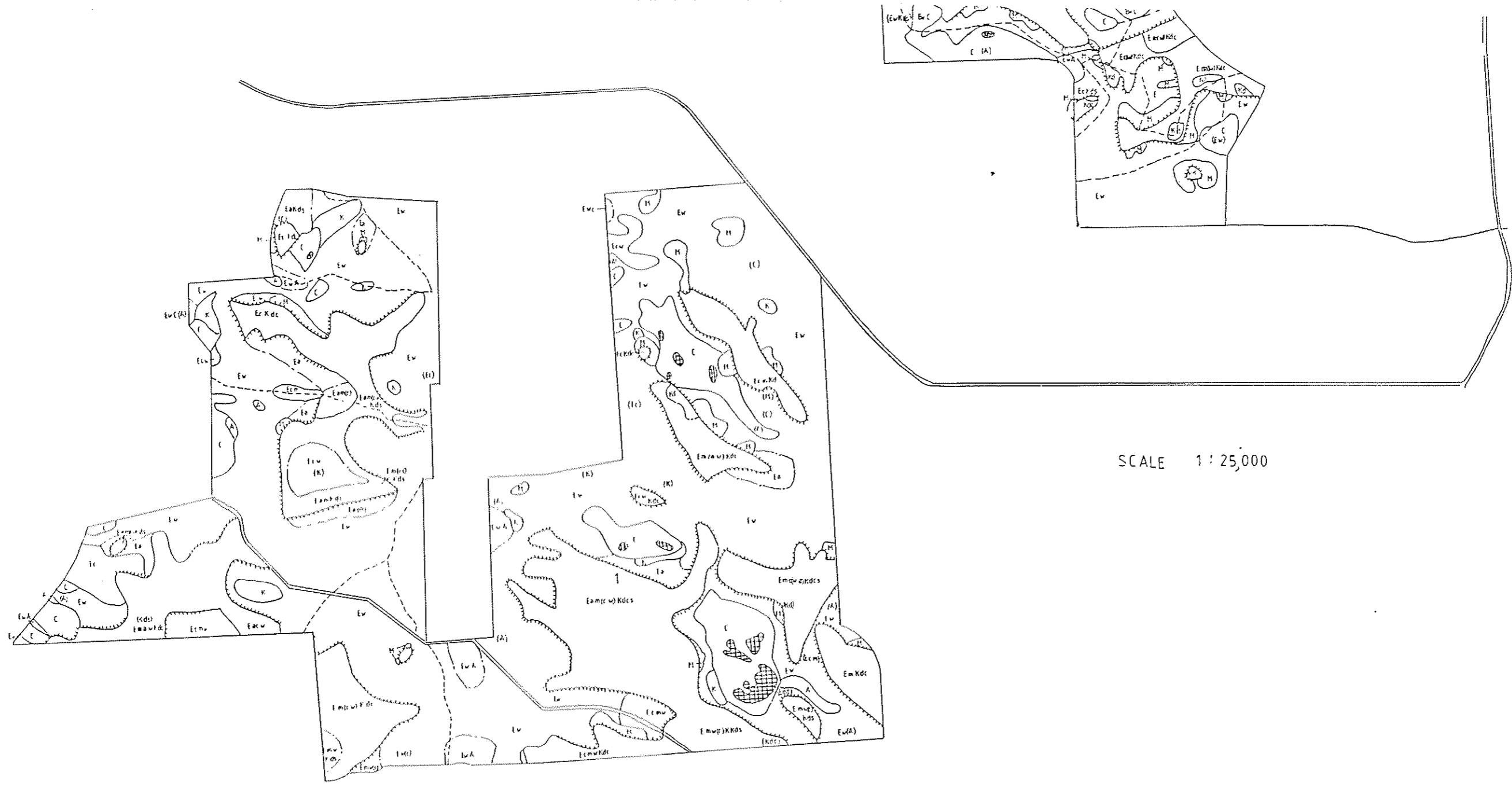
Map Unit

- E
- Ea
- Ec
- Ej
- Em
- Ew
- M
- C
- A
- K
- Kd
- Ke
-
- Kd
- Kdc
- Kds



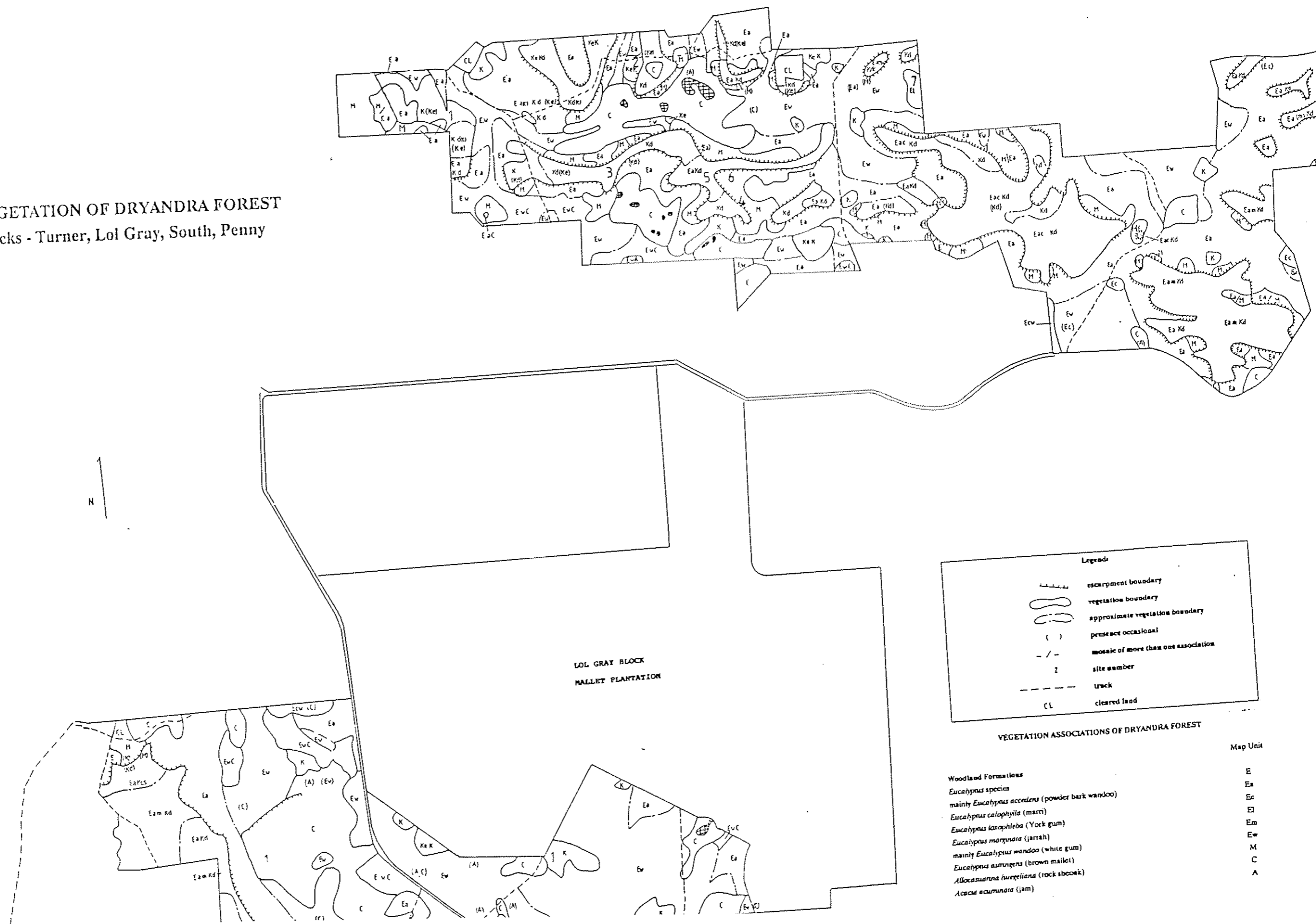
SKELTON BLOCK
MALLET PLANTATION

CONGELIN BLOCK
MALLET PLANTATION



SCALE 1 : 25,000

VEGETATION OF DRYANDRA FOREST
Blocks - Turner, Lol Gray, South, Penny



Legend

- escarpment boundary
- vegetation boundary
- approximate vegetation boundary
- presence occasional
- mosaic of more than one association
- site number
- track
- cleared land

VEGETATION ASSOCIATIONS OF DRYANDRA FOREST

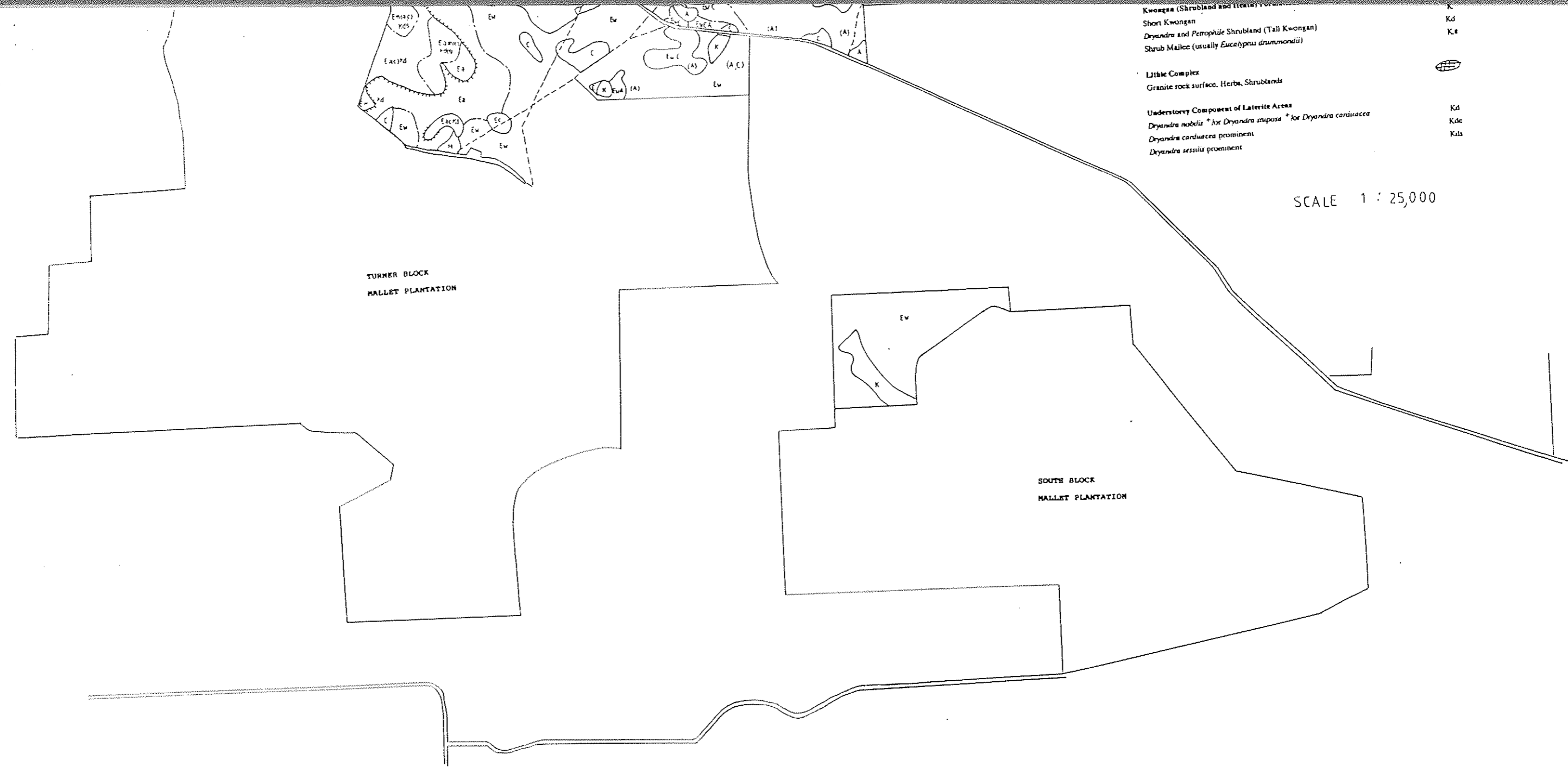
| | Map Unit |
|--|----------|
| Woodland Formations | E |
| <i>Eucalyptus</i> species | Ea |
| mainly <i>Eucalyptus accedens</i> (powder bark wandoo) | Ec |
| <i>Eucalyptus calophylla</i> (marr) | Ei |
| <i>Eucalyptus lasophylla</i> (York gum) | Em |
| <i>Eucalyptus marginata</i> (jarrah) | Ew |
| mainly <i>Eucalyptus wandoo</i> (white gum) | M |
| <i>Eucalyptus asturicus</i> (brown mallet) | C |
| <i>Allocasuarina huegeliana</i> (rock sheoak) | A |
| <i>Acacia eucalyptata</i> (jam) | |

Kwongan (Shrubland and *Iteropora*) K
 Short Kwongan Kd
Dryandra and *Pteropile* Shrubland (Tall Kwongan) Ke
 Shrub Mallee (usually *Eucalyptus drummondii*)
 Little Complex
 Granite rock surface, Herbs, Shrublands
 Understorey Component of Laterite Areas Kd
Dryandra nobilis * for *Dryandra suposa* * for *Dryandra cariuacea* Kdc
Dryandra cariuacea prominent Kds
Dryandra sessilis prominent

SCALE 1 : 25,000

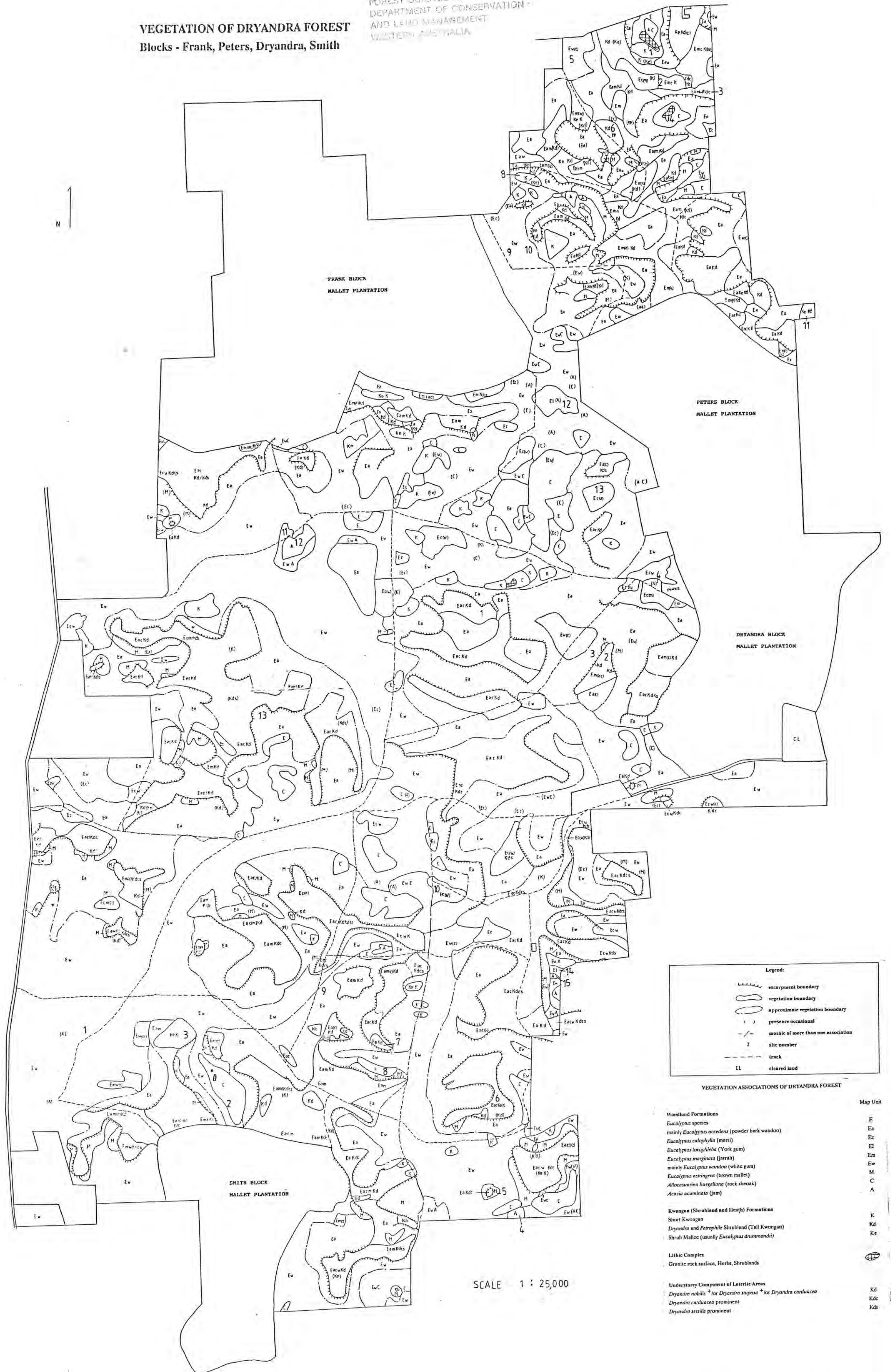
TURNER BLOCK
MALLET PLANTATION

SOUTH BLOCK
MALLET PLANTATION



VEGETATION OF DRYANDRA FOREST
Blocks - Frank, Peters, Dryandra, Smith

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WESTERN AUSTRALIA



Legend:

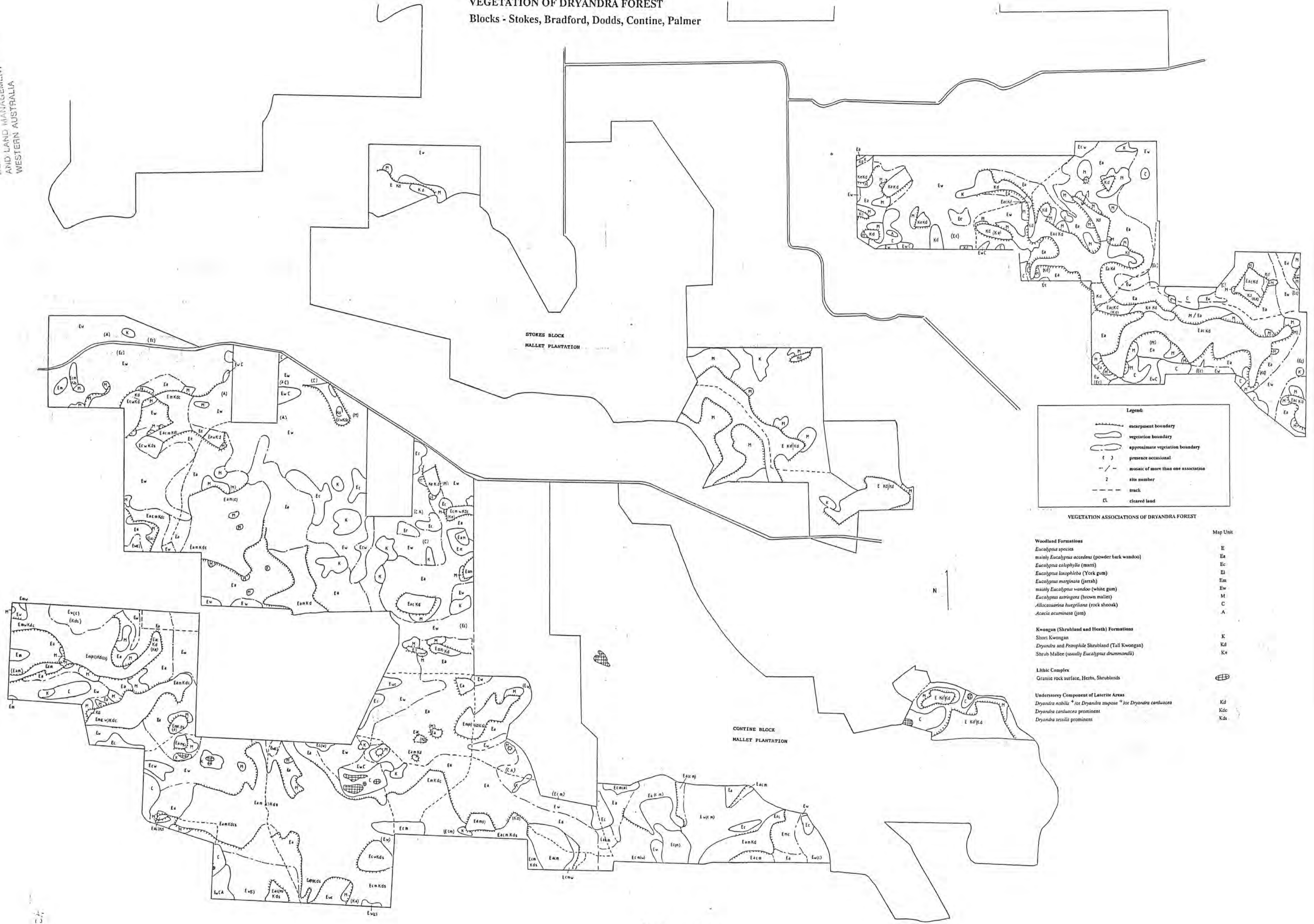
- escarpment boundary
- vegetation boundary
- approximate vegetation boundary
- 1 2 presence occasional
- 2 site number
- truck
- CL cleared land

VEGETATION ASSOCIATIONS OF DRYANDRA FOREST

| Woodland Formations | Map Unit |
|--|----------|
| <i>Eucalyptus</i> species | E |
| mainly <i>Eucalyptus accedens</i> (powder bark wandoo) | Ea |
| <i>Eucalyptus calophylla</i> (massi) | Ec |
| <i>Eucalyptus lasophylla</i> (York gum) | El |
| <i>Eucalyptus marginata</i> (jarrah) | Em |
| mainly <i>Eucalyptus wandoo</i> (white gum) | Ew |
| <i>Eucalyptus astringens</i> (brown mallet) | M |
| <i>Allocasuarina hughesiana</i> (rock sheak) | C |
| <i>Acacia acuminata</i> (jam) | A |
| Kwongan (Shrubland and Heath) Formations | |
| Short Kwongan | K |
| <i>Dryandra</i> and <i>Peropeltis</i> Shrubland (Tall Kwongan) | Kd |
| Shrub Mallee (usually <i>Eucalyptus drummondii</i>) | Ke |
| Lithic Complex | |
| Granitic rock surface, Hefts, Shrublands | (Symbol) |
| Understorey Component of Litteric Areas | |
| <i>Dryandra nobilis</i> + <i>Dryandra supina</i> + <i>Dryandra cardiacea</i> | Kd |
| <i>Dryandra cardiacea</i> prominent | Kdc |
| <i>Dryandra sessilis</i> prominent | Kds |

SCALE 1 : 25,000

VEGETATION OF DRYANDRA FOREST
 Blocks - Stokes, Bradford, Dodds, Contine, Palmer



Legend:

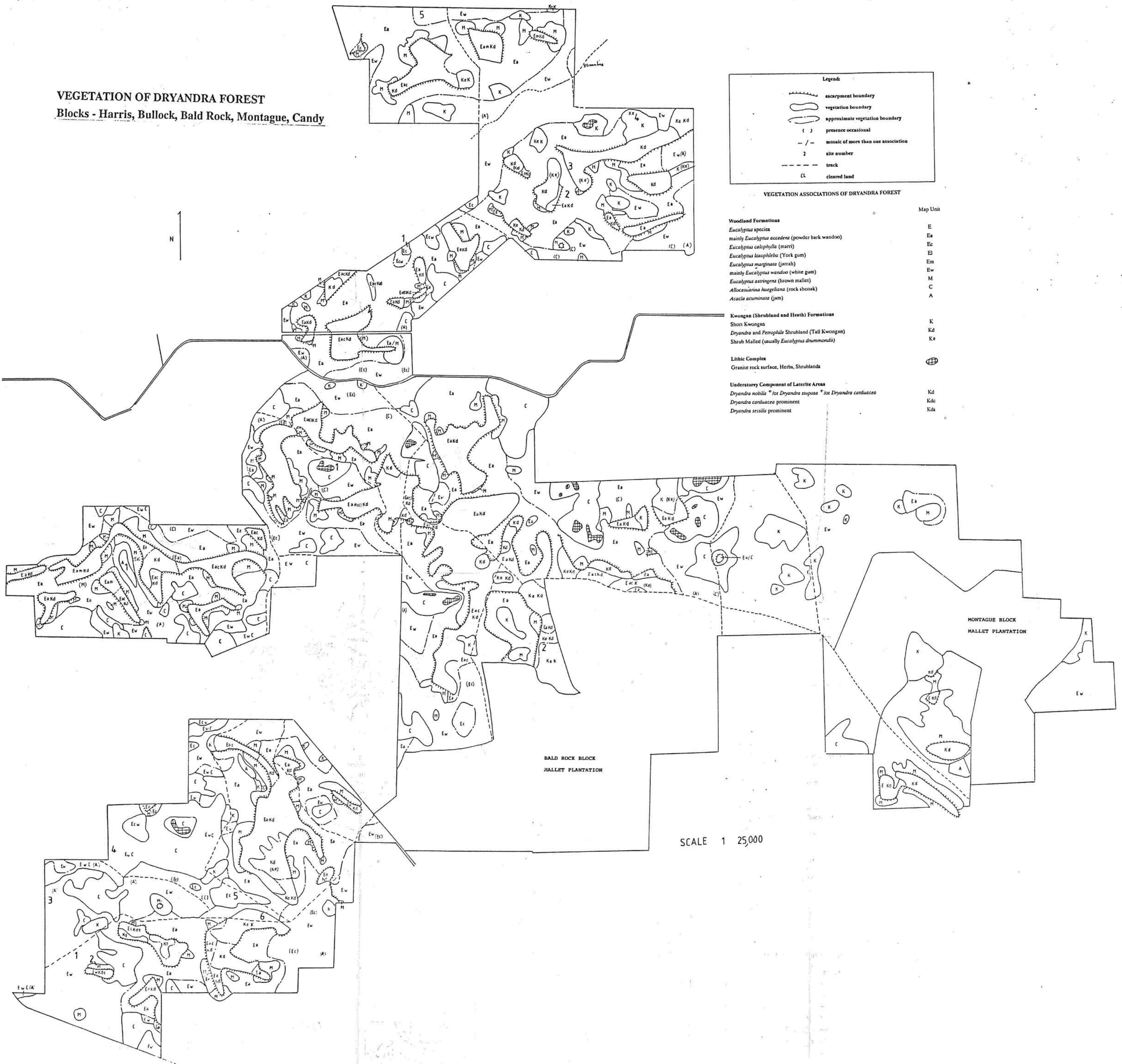
- escarpment boundary
- vegetation boundary
- approximate vegetation boundary
- presence occasional
- mosaic of more than one association
- site number
- track
- cleared land

VEGETATION ASSOCIATIONS OF DRYANDRA FOREST

| | Map Unit |
|--|----------|
| Woodland Formations | |
| <i>Eucalyptus</i> species | E |
| mainly <i>Eucalyptus accedens</i> (powder bark wandoo) | Ea |
| <i>Eucalyptus calophylla</i> (manri) | Ec |
| <i>Eucalyptus lanophylla</i> (York gum) | Ei |
| <i>Eucalyptus marginata</i> (jarrah) | Em |
| mainly <i>Eucalyptus vandoi</i> (white gum) | Ew |
| <i>Eucalyptus astrogona</i> (brown mallet) | M |
| <i>Allocasuarina huegeliana</i> (rock sheoak) | C |
| <i>Acacia acuminata</i> (jam) | A |
| Kwoongan (Shrubland and Heath) Formations | |
| Short Kwoongan | K |
| <i>Dryandra</i> and <i>Peperomia</i> Shrubland (Tall Kwoongan) | Kd |
| Shrub Mallee (usually <i>Eucalyptus drummondii</i>) | Ks |
| Lithic Complex | |
| Granitic rock surface, Herbs, Shrublands | |
| Understorey Component of Laterite Areas | |
| <i>Dryandra nobilis</i> * for <i>Dryandra imposita</i> * for <i>Dryandra carduacea</i> | Kd |
| <i>Dryandra carduacea</i> prominent | Kdc |
| <i>Dryandra tessellata</i> prominent | Kds |

SCALE 1:25,000

VEGETATION OF DRYANDRA FOREST
Blocks - Harris, Bullock, Bald Rock, Montague, Candy



Legend:

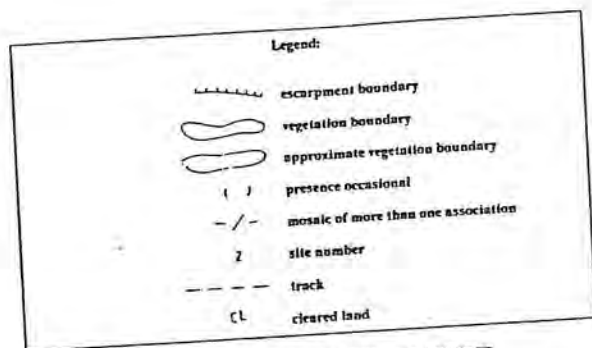
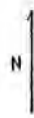
- escarpment boundary
- vegetation boundary
- approximate vegetation boundary
- presence occasional
- mosaic of more than one association
- site number
- track
- cleared land

VEGETATION ASSOCIATIONS OF DRYANDRA FOREST

| | Map Unit |
|--|----------|
| Woodland Formations | |
| <i>Eucalyptus</i> species | E |
| mainly <i>Eucalyptus occidentalis</i> (powder bark wandoo) | Ea |
| <i>Eucalyptus calophylla</i> (marr) | Eb |
| <i>Eucalyptus laeophylla</i> (York gum) | Ei |
| <i>Eucalyptus marginata</i> (jarrah) | Em |
| mainly <i>Eucalyptus wandoo</i> (white gum) | Ew |
| <i>Eucalyptus astringens</i> (brown mallet) | M |
| <i>Allocasuarina huegeliana</i> (rock sheoak) | C |
| <i>Acacia acuminata</i> (jam) | A |
| Kwongan (Shrubland and Heath) Formations | |
| Short Kwongan | K |
| Dryandra and <i>Peraphloe</i> Shrubland (Tall Kwongan) | Kd |
| Shrub Mallee (usually <i>Eucalyptus drummondii</i>) | Ke |
| Lithic Complex | |
| Granite rock surface, Herbs, Shrublands | |
| Understorey Component of Laterite Areas | |
| <i>Dryandra nobilis</i> * / <i>Dryandra supina</i> * / <i>Dryandra caradocae</i> | Kd |
| <i>Dryandra caradocae</i> prominent | Kdc |
| <i>Dryandra sessilis</i> prominent | Kds |

SCALE 1 : 25,000

VEGETATION OF DRYANDRA FOREST
 Blocks - Skelton, Miles, Congelin, A24, A25



VEGETATION ASSOCIATIONS OF DRYANDRA FOREST

Woodland Formations

- Eucalyptus* species
- mainly *Eucalyptus accedens* (powder bark wandoo)
- Eucalyptus cataphylla* (marr)
- Eucalyptus lasophylla* (York gum)
- Eucalyptus marginata* (jarrah)
- mainly *Eucalyptus wandoo* (white gum)
- Eucalyptus aurigena* (brown mallet)
- Allocasuarina hughesiana* (rock sheoak)
- Acacia acuminata* (jam)

Kwongan (Shrubland and Heath) Formations

- Short Kwongan
- Dryandra* and *Pterophila* Shrubland (Tall Kwongan)
- Shrub Mallee (usually *Eucalyptus drummondii*)

Lithic Complex

- Granite rock surface, Herbs, Shrublands

Understorey Component of Laterite Areas

- Dryandra nobilis* * or *Dryandra missoua* * or *Dryandra carthusiana*
- Dryandra carthusiana* prominent
- Dryandra sessilis* prominent

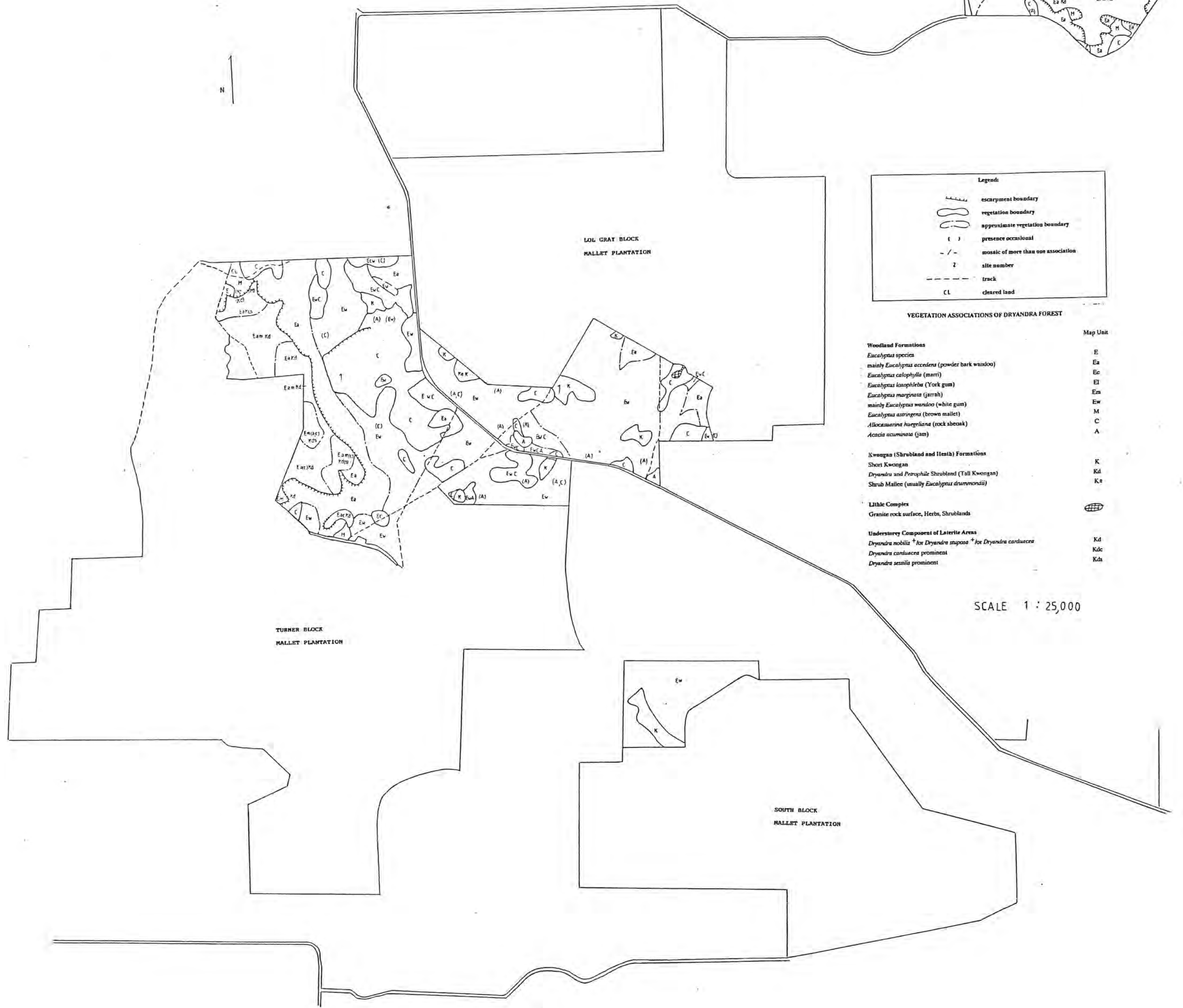
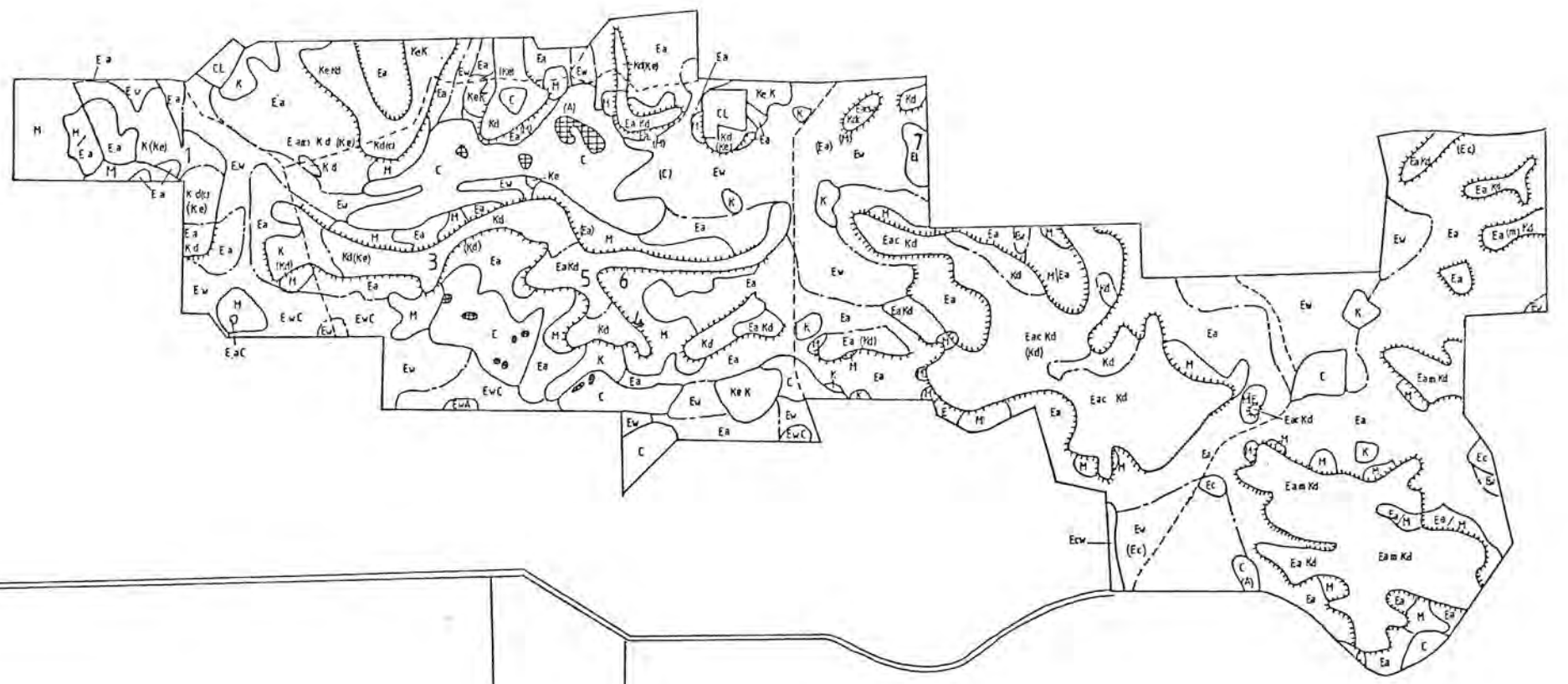
Map Unit

- E
- Es
- Ec
- Ei
- Em
- M
- C
- A
- K
- Kd
- Ke
-
- Kd
- Kdc
- Kds



SCALE 1:25,000

VEGETATION OF DRYANDRA FOREST
 Blocks - Turner, Lol Gray, South, Penny



Legend:

- escarpment boundary
- vegetation boundary
- approximate vegetation boundary
- presence occasional
- mosaic of more than one association
- site number
- track
- cleared land

VEGETATION ASSOCIATIONS OF DRYANDRA FOREST

| | Map Unit |
|---|----------|
| Woodland Formations | |
| <i>Eucalyptus</i> species | E |
| mainly <i>Eucalyptus occidentalis</i> (powder bark wandoo) | Ea |
| <i>Eucalyptus calophylla</i> (marr) | Ea |
| <i>Eucalyptus lasophylla</i> (York gum) | Ei |
| <i>Eucalyptus marginata</i> (jarrah) | Em |
| mainly <i>Eucalyptus wandoo</i> (white gum) | Ew |
| <i>Eucalyptus aspingens</i> (brown mallet) | M |
| <i>Allocasuarina huegeliana</i> (rock sheoak) | C |
| <i>Acacia acuminata</i> (jam) | A |
| Kwongan (Shrubland and Heath) Formations | |
| Short Kwongan | K |
| <i>Dryandra</i> and <i>Prospitula</i> Shrubland (Tall Kwongan) | Kd |
| Shrub Mallee (usually <i>Eucalyptus drummondii</i>) | Ke |
| Lillic Complex | |
| Granite rock surface, Herbs, Shrublands | |
| Understorey Component of Laterite Areas | |
| <i>Dryandra nobilis</i> * for <i>Dryandra imposita</i> * for <i>Dryandra caribaeana</i> | Kd |
| <i>Dryandra caribaeana</i> prominent | Kdc |
| <i>Dryandra sessilis</i> prominent | Kds |

SCALE 1 : 25,000