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*Flora of Treendale Reserve  
Australind*

*Bushland Plant Survey  
Wildflower Society of Western Australia  
1996*

*Prepared by C. Tauss*

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## INTRODUCTION

Treendale Reserve, (Reserve No. 8118/26270) Australind is a 4.04 hectare remnant vested in and managed by the Shire of Harvey as a conservation reserve. It is situated just east of the Brunswick River, south of Paris Rd on both sides of Ditchingham Rd. The survey was requested by local Australind residents interested in conserving the flora of the reserve.

The survey was funded by a Save the Bush Grant under the National Landcare Program as a project of:

- The Wildflower Society of Western Australia (Inc);
- Department of Conservation and Land Management W.A. Volunteer Program;
- Ecoplan (Department of Environmental Protection W.A.

## METHODS

The survey was conducted in spring 1996 with local community volunteers and members of the Wildflower Society of W.A. and involved setting up flora monitoring sites and opportunistic collecting throughout the bush.

Six permanent 100 sqm study sites were established. Information from each site about structure and floristics was recorded using a standard format (Keighery, 1994) which can be readily used by trained volunteers to monitor changes over time. Specimens from the survey were pressed, dried, identified and mounted. The specimens were verified at the WA State Herbarium Como with assistance from community volunteers and the Herbarium was provided with duplicates of interest. The collection of specimens will be presented to the Australind residents group for use in management activities, further monitoring and as a general educational resource.

The vegetation units and condition of the reserve were not mapped due to the relative uniformity and small scale of the reserve. Vegetation units were described after Specht 1981.



Paris Rd

Treendale Reserve (East)

Treendale Reserve (West)

Ditchinglaw Rd

# VEGETATION

## Vegetation Habitats

Treendale Reserve is a relatively flat, well drained area located in grey Bassendean quartz sands.

The vegetation in the area was mapped on a broad scale as being in the Bassendean Vegetation Complex. (Heddle et al, 1980).

## Vegetation Units

The vegetation in the study area varies from low woodland dominated by *Banksia attenuata* to an open woodland of *Eucalyptus marginata* and *Corymbia callophylla* (Marri).

Six flora study sites were located in very good to excellent condition. These sites are described below and site data sheets are attached in Appendix 2.

## Flora Site Descriptions

### AUSTRAL 1

*Eucalyptus marginata* open woodland over low open woodland of *Corymbia callophylla*/*Banksia attenuata* with *Jacksonia sparsa*/*Stirlingia latifolia* open shrubland and diverse open herbs/sedges.

**Condition:** very good. **Soil:** grey sand. **Litter:** over 70%. **Bare Ground:** less than 2%. **Aspect:** flat. **Drainage:** well drained

### AUSTRAL 2

*Eucalyptus marginata* open woodland over *Banksia ilicifolia*/*Banksia attenuata* open scrub with *Hibbertia hypericoides* heath.

**Condition:** excellent **Soil:** grey sand. **Litter:** 50%. **Bare Ground:** 0%.  
**Aspect:** flat. **Drainage:** well drained.

### AUSTRAL 3

*Eucalyptus marginata*/*Corymbia callophylla* woodland over *Melaleuca thymoides* open heath.

**Condition:** very good. **Soil:** grey sand. **Litter:** 35%. **Bare Ground:** 5%.  
**Aspect:** flat. **Drainage:** well drained.

#### AUSTRAL 4

*Eucalyptus marginata*/ *Banksia attenuata* low open woodland over *Melaleuca thymoides* /*Hibbertia hypericoides* open heath

**Condition:** very good. **Soil:** grey sand. **Litter:** 10-30%. **Bare Ground:** 2-10%.  
**Aspect:** flat. **Drainage:** well drained

#### AUSTRAL 5

*Banksia attenuata* low open forest over *Stirlingia latifolia* /*Hibbertia hypericoides* open heath.

**Condition:** very good. **Soil:** grey sand. **Litter:** >70%. **Bare Ground:** <2%.  
**Aspect:** flat. **Drainage:** well drained

#### AUSTRAL 6

*Banksia attenuata* low woodland over *Agonis flexuosa* tall shrubland, *Stirlingia latifolia* low shrubland and *Desmocladius flexuosus* sedgeland.

**Condition:** very good. **Soil:** grey sand. **Litter:** >70%. **Bare Ground:** <2%.  
**Aspect:** flat. **Drainage:** well drained

### Floristics

A total of 117 indigenous taxa and 46 naturalized alien taxa (weeds) were recorded (Appendix 1).

One CALM Priority Taxon (1996), *Jacksonia sparsa* was found. In addition a poorly known *Tetratheca* sp was present.

## MANAGEMENT

Whilst it is beyond the scope of this report to present detailed management strategies, some broad principles in managing the Treendale Reserve for conservation should include:

- Total exclusion of fire as a management strategy from the bushland and the rapid control of any wild fires which do occur.
- Creation of a programme to control the propagation of the most aggressive weeds from the bushland areas.
- Monitoring of management actions.

### Fire

The Treendale Reserve appears to have been spared from fires in recent years which is reflected in the generally very good condition of the bushland and low cover of weeds. It does have a low cover of exotic grass weeds such as Perennial Veldt Grass and Wild Oats which if left to proliferate can create a fire hazard.

A programme of spraying the Veldt Grass with the selective herbicide Fusilade could be instituted if funds were available. It may be necessary to spray the bushland several times in the first season to kill both parent plants and seedlings. It is also, of course, important to apply the spray on a dry day so there can be sufficient contact of the spray with the grass before the next rain occurs. Coupled with the high cost of this herbicide, these factors mean a Fusilade treatment programme needs to be carefully planned and supervised.

The Fire and Rescue Service is currently preparing contingency plans in co-operation with volunteer groups and local authorities for protecting significant areas of bushland in Perth from fire. The Harvey Shire could have an important role in initiating such a plan for Treendale Reserve if it does not already exist.

### Weeds

Treendale Reserve with its high cover of indigenous species and low incidence of weeds would respond well to the Bradley Method of Bush Regeneration in dealing with weeds (Buchanan, 1989).

A number of potentially serious weeds occur at low frequency in and around the perimeter of the reserve. These include: \**Euphorbia terracina*, \**Nothoscordum gracile*, \**Oxalis glabra*, \**Oxalis pes-caprae*, \**Ricinus communis* and \**Watsonia marginata*.

Most of these weeds are easily treated with herbicides (Scheltema & Harris, 1995) except the \**Oxalis* spp. Care should be taken not to disturb soil around the *Oxalis glabra* on the edges of the bush in cultivating firebreaks etc as this spreads the corms of this difficult to eradicate weed.

The removal of Lupins by the community group involved with the bush will probably be necessary on a continuing basis for the next few years as the seeds are very long lasting in the soil and germinate sporadically. Treatment of exotic grass weeds to control fire hazard (see above) will also help to preserve the diverse indigenous herb flora of the reserve.

Around the perimeter of the reserve weed removal strategies should be coupled with replanting to create a mantle of local plants which will act in suppressing further weed invasion. The interior of the reserve, however, should be managed conservatively relying on weed removal and natural regeneration rather than replanting.

Suitable fencing and signage around the reserve would help to reduce dumping which at present seems to be a major contributor of weeds.

A list of species suitable for revegetating the perimeter of the site is presented below. Propagation material for the revegetation programme should be obtained locally.

### Species Suitable for Revegetation

*Acacia applanata*  
*Acacia horridula*  
*Acacia pulchella*  
*Allocasuarina humulis*  
*Austrostipa compressa*  
*Corymbia calophylla*  
*Gompholobium tomentosum*  
*Gompholobium polymorphum*  
*Hardenbergia comptoniana*  
*Jacksonia sparsa*  
*Kennedia prostrata*  
*Podolepis gracilis*  
*Xanthorrhoea brunonis*

## DISCUSSION

Treendale Reserve is a diverse example of Bassendean Dune vegetation in a rapidly urbanizing area. Considering the extensive clearing of this type of vegetation on the Swan Coastal Plain this reserve is of local and possibly regional significance. Although it is not large and is fragmented into two areas by Ditchingham Rd it is in very good to excellent condition. The adjoining land east of the reserve is in public ownership (Water Corporation) and constitutes very good condition bushland. It should be retained as bushland and managed in sympathy with Treendale if possible to increase the viability of the bushland.

A medium level continuing appropriate management effort will ensure Treendale will continue to be an important local natural history resource of increasing scarcity in the Shire of Harvey.

### ACKNOWLEDGMENTS:

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## REFERENCES

Atkins, K. 1996. Declared rare and priority list for Western Australia. CALM W.A.

Buchanan R A 1989. Bush regeneration: recovering Australian landscapes. TAFE Sydney.

Hedde, E.M., Loneragan, O.W. & Havel, J.J. 1980. Vegetation of the Darling System. In : Atlas of Natural Resources, Darling System, Western Australia. Department of Conservation and Environment. Western Australia.

Keighery, B.J. 1994. Bushland Plant Survey. A Guide to Plant Community Survey for the Community. Wildflower Society of Western Australia.

Specht, R.L. 1981. Foliage projective cover and standing biomass. In: Vegetation Classification in Australia, pp 10-21 Gillison A.N and Anderson D.J. (ed). C.S.I.R.O.

# FLORA LIST

## FLORA OF TREENDALE RESERVE, AUSTRALIND

July 1997

### CYCADS

#### Zamiaceae

*Macrozamia riedlei*

Zamia

### FLOWERING PLANTS

#### Alliaceae

\**Nothoscordum gracile*

#### Anthericaceae

*Agrostocrinium scabrum*

*Caesia micrantha*

*Chamaescilla corymbosa*

*Sowerbaea laxiflora*

*Thysanotus arbuscula*

*Thysanotus patersonii*

*Thysanotus multiflorus*

*Tricoryne elatior*

Blue Grass Lily

Pale Grass Lily

Blue Squill

Vanilla Lily

Fringe Lily

Fringe Lily

Fringe Lily

Yellow Autumn Lily

#### Apiaceae

*Daucus glochidiatus*

*Homalosciadium homalospermum*

*Trachymene pilosa*

*Xanthosia huegelii*

Native Carrot

Native Parsnip

#### Asteraceae

\**Arctotheca calendula*

*Asteridea pulverulenta*

\**Hypochaeris glabra*

\**Lactuca serriola*

*Lagenifera huegelii*

*Podolepis gracilis*

*Rhodanthe citrina*

*Senecio hispidulus*

\**Sonchus oleraceus*

\**Ursinia anthemoides*

Cape Weed

Common Bristle Daisy

Flat Weed

Prickly Lettuce

Coarse Lagenifera

Slender Podolepis

Hispid Fireweed

Common Sowthistle

Note:

\* Naturalised alien taxa

# CALM Priority taxa

## Brassicaceae

\**Raphanus raphanistrum*

Wild Radish

## Caryophyllaceae

\**Petrorhagia velutina*

\**Silene gallica*

Velvet Pink

French Catchfly

## Casuarinaceae

*Allocasuarina humulis*

Dwarf Sheoak

## Colchicaceae

*Burchardia congesta*

Milkmaids

## Crassulaceae

*Crassula colorata*

Dense Stonecrop

## Cyperaceae

*Lepidosperma pubisquameum*

*Lepidosperma squamatum*

*Tetraria octandra*

## Dasypogonaceae

*Dasypogon bromeliifolius*

*Lomandra caespitosa*

*Lomandra hermaphrodita*

*Lomandra integra*

*Lomandra nigricans*

*Lomandra odora*

*Lomandra preissii*

*Lomandra purpurea*

*Lomandra suavolens*

Pineapple Bush

Tufted Mat Rush

## Dilleniaceae

*Hibbertia hypericoides*

*Hibbertia racemosa*

Buttercups

Stalked Guinea Flower

## Droseraceae

*Drosera erythrorhiza*

*Drosera pallida*

*Drosera stolonifera* ssp. *porrecta*

Red Ink Sundew

## Epacridaceae

*Astroloma ?ciliatum*

*Astroloma pallidum*

*Conostephium preissii*

*Leucopogon ?polymorphus*

*Leucopogon propinquus*

Kick Bush

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Note:

\* Naturalised alien taxa

# CALM Priority taxa

## Euphorbiaceae

\**Euphorbia peplus*

\**Euphorbia terracina*

*Poranthera microphylla*

*Phyllanthus calycinus*

\**Ricinus communis*

Petty Spurge

Geraldton Carnation

False Boronia

Castor Oil Plant

## Fumariaceae

\**Fumaria muralis*

Fumitory

## Geraniaceae

*Pelargonium littorale*

## Goodeniaceae

*Dampiera linearis*

*Goodenia incana*

*Scaevola calliptera*

## Haemodoraceae

*Anigozanthus manglesii*

*Conostylis aculeata*

*Conostylis juncea*

*Haemodorum spicatum*

*Phlebocarya ciliata*

Kangaroo Paw

Prickly Conostylis

## Iridaceae

*Patersonia occidentalis*

\**Romulea rosea*

\**Watsonia marginata*

Purple Flag

Guildford Grass

## Lamiaceae

*Hemiandra pungens*

Snake Bush

## Lobeliaceae

*Lobelia tenuior*

Slender Lobelia

## Loranthaceae

*Nuytsia floribunda*

W.A. Xmas Tree

## Mimosaceae

*Acacia applanata*

*Acacia horridula*

*Acacia huegelli*

*Acacia pulchella*

*Acacia stenoptera*

Prickly Moses

Narrow Winged Wattle

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Note:

\* Naturalised alien taxa

# CALM Priority taxa

## Myrtaceae

*Agonis flexuosa*  
*Calytrix flavescens*  
*Corymbia calophylla*  
*Eucalyptus marginata*  
*Kunzea ericifolia*  
*Melaleuca thymoides*

Peppermint  
Summer Starflower  
Marri  
Jarrah  
Spearwood

## Onagraceae

\**Oenothera mollissima*

## Orchidaceae

*Burnettia nigricans*  
*Caladenia flava*  
*Diuris corymbosa*  
*Elythranthera brunonis*  
\**Monodenia bracteata*  
*Pterostylis nana*  
*Pterostylis vittata*  
*Thelymitra* sp.

Red Beak Orchid  
Cowslip Orchid  
Donkey Orchid  
Purple Enamel Orchid  
  
Snail Orchid  
Banded Reenhood Orchid

## Oxalidaceae

\**Oxalis glabra*  
\**Oxalis pes-caprae*

Soursob

## Papilionaceae

*Bossiaea eriocarpa*  
\**Cytisus proliferus*  
*Daviesia divaricata*  
*Daviesia physodes*  
*Gompholobium polymorphum*  
*Gompholobium tomentosum*  
*Hardenbergia comptoniana*  
*Hovea trisperma*  
#*Jacksonia sparsa*  
*Kennedia prostrata*  
\**Lotus angustissimus*  
\**Lotus suaveolens*  
\**Lupinus consentinii*  
\**Lupinus luteus*  
\**Lupinus mutabilis*  
*Nemcia capitata*  
\**Ornithopsis compressus*  
\**Trifolium augustifolium*  
\**Trifolium campestre*  
\**Trifolium dubium*  
\**Trifolium subterraneum*  
\**Vicia sativa*

Common Brown Pea  
Tree Lucerne

Hairy Yellow Pea  
Native Wisteria

Red Runner  
Narrowleaf Trefoil  
Hairy Birdsfoot Trefoil  
Sandplain Lupin  
Yellow Lupin  
Pearl Lupin  
Eggs and Bacon  
Yellow Serradella

Hop Clover

Vetch

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### Note:

\* Naturalised alien taxa  
# CALM Priority taxa

## Pittosporaceae

*Pronaya fraseri*

## Poaceae

\**Aira cupaniana*

*Austrostipa compressa*

*Austrostipa semibarbata*

\**Avena barbata*

\**Briza maxima*

\**Briza minor*

\**Bromus diandrus*

\**Cynodon dactylon*

*Dichelachne crinata*

\**Ehrharta calycina*

\**Ehrharta longiflora*

\**Lagurus ovatus*

\**Lolium perenne*

*Notodanthonia occidentalis*

\**Pennisetum clandestinum*

Bearded Oats

Blowfly Grass

Great Brome

Couch

Perennial Veldt Grass

Annual Veldt Grass

Hare's Tail Grass

Perennial Rye Grass

Kikuyu Grass

## Polygalaceae

*Comesperma virgatum*

## Primulaceae

\**Anagallis arvensis*

Pimpernel

## Proteaceae

*Adenanthos meisneri*

*Banksia attenuata*

*Banksia grandis*

*Banksia ilicifolia*

*Persoonia longifolia*

*Persoonia saccata*

*Petrophile linearis*

*Stirlingia latifolia*

*Synaphea spinulosa*

*Xylomelum occidentale*

Yellow Candle Banksia

Bull Banksia

Holly Leaf Banksia

Snottygobble

Pixie Mops

Blueboy

Woody Pear

## Restionaceae

*Desmocladius flexuosus*

*Hypolaena exsulca*

*Loxocarya fasciculata*

*Lyginia barbata*

## Rubiaceae

*Opercularia apiciflora*

*Opercularia hispidula*

*Opercularia vaginata*

Note:

\* Naturalised alien taxa

# CALM Priority taxa

## Rutaceae

*Eriostemon spicatus*

Pepper and Salt

## Scrophulariaceae

\**Parentucellia latifolia*

\**Parentucellia viscosa*

\**Verbascum virgatum*

Green Mullein

## Stylidiaceae

*Stylidium brunonianum*

*Stylidium piliferum*

*Stylidium schoenoides*

Pink Fountain Triggerplant

Butterfly Triggerplant

Cow Kicks

## Tremandraceae

*Tetratheca* sp.

## Violaceae

*Hybanthus calycinus*

*Hybanthus floribundus* ssp. *floribundus*

Native Violet

## Xanthorrhoeaceae

*Xanthorrhoea brunonis*

Grass Tree

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Note:

\* Naturalised alien taxa

# CALM Priority taxa