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**SOME NATURE RESERVES
OF THE
WESTERN AUSTRALIAN
WHEATBELT**

**PART 25
PINGELLY SHIRE**

B.G. MUIR

1979

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WHEATBELT

PART 25 : PINGELLY SHIRE

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SOME NATURE RESERVES OF THE PINGELLY SHIRE

B.G. MUIR

INTRODUCTION

Pingelly Shire is located in the western-central wheatbelt and has an area of about 1233 square km. There are 22 Nature Reserves within the Shire, totalling ca 76 square km. or ca 6% of the area of the Shire. The largest reserves are 20610 (Boyagin) 4043 ha and A25555 (Tutanning) 2055. Of the remaining 20 reserves 17 are less than 100 ha in area.

Three of the reserves have 'A' classifications, A11144 (Boyagin Rock), A12098 and A25555 (Tutanning). One Reserve, 10753 (Patt Rock) is vested in the Minister for Water Supply, Sewerage and Drainage, another, 31163 (Tutanning) in the Minister for Fisheries and Fauna. Ten reserves, 9714 and 10142 (Woyerling Reserves), 19128 and 20610 (Boyagin Reserves) A25555 (Tutanning) 21286, 30298 (Murnanying), 21287, 2023, and A11144 (Boyagin Rock) are vested in the Western Australian Wildlife Authority. The remaining 10 reserves are unvested.

This survey was carried out in July 1979 and consisted of brief examinations of Reserves 6798, A12098, 13797, 20066, 20095, 26150 and 28656.

A report on each of the Reserves is presented.

METHODOGY

Physical characteristics of the reserves were obtained directly from the most recently available lithographs as published by the Department of Lands and Survey, and interpreted from observations made on the reserve.

Reserves were examined by vehicle where tracks were available, and on foot. Local knowledge and air-photographs were consulted to find areas of particular interest. Only a very short time could be spent on each reserve, the smaller ones being examined in 1 or 2 hours, the larger ones in a full day.

Vegetation was classified using Muir's (1977) system (Table 1), which was designed specifically for describing wheatbelt vegetation. In the presentation of the abbreviated descriptions (in the section titled "Vegetation") capital letters in descriptive terms refer to specific classes of life form, height and canopy cover as used in the classification.

As the survey period on any reserve was very brief only the commonest plant species could be noted. Any species in which less than 3 individual plants were encountered within a space of 10-15 minutes examination of the vegetation was considered uncommon and are not listed. As much of the survey work was carried out rapidly and in unfavourable seasons, many plants were not flowering and so identifications were made from foliage alone. Only if an important dominant plant was not recognised were specimens bought back to the laboratory for examination.

Soil was examined very briefly and classified according to Northcote's (1971) texture groups and Munsell (1954) colour terms.

Fire history was determined from observation of the area, appearance of air-photographs and information from nearby farmers.

Fauna were not specially sought, but some species (usually the most obvious) were encountered while examining vegetation. The lists provided are only a small fraction of the species present on nearly every reserve examined. Scats, footprints, burrows, nests and other indirect evidence is used only where identification is certain. Observations by farmers are used if considered reliable.

TABLE 1: VEGETATION CLASSIFICATION AS USED IN WHEATBELT SURVEY

LIFE FORM/HEIGHT CLASS	CANOPY COVER			
	DENSE 70-100% ^d	MID-DENSE 30-70% ^c	SPARSE 10-30% ⁱ	VERY SPARSE 2-10% ^r
T Trees >30m M Trees 15-30m LA Trees 5-15m LB Trees <5m	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 >2m SA Shrubs 1.5-2.0m SB Shrubs 1.0-1.5m SC Shrubs 0.5-1.0m SD Shrubs 0.0-0.5m	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 >0.5m GL Bunch grass <0.5m 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 >0.5m VL Sedges <0.5m	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

Opinion and recommendations expressed in these reports are entirely those of the author and are based on extensive experience in vegetation mapping and description in the wheatbelt, and association with faunal and habitat studies conducted by suitably qualified researchers.

RESULTS AND DISCUSSION.

Characteristics of the reserves can be summarised as follows:

Reserve 6798-ca 19 ha; Casuarina woodland

and Wandoo woodland; heavily grazed; valuable for transient fauna.

Reserve Al2098-ca 36 ha; Jam-York Gum woodland, Wandoo woodland, creek with aquatics and marginal trees and shrubs; heavily disturbed; prone to salt encroachment.

Reserve 13797-ca 36 ha; Wandoo woodland, heath; very rich in plant species; valuable and should be retained.

Reserve 20066-ca 24 ha; Wandoo woodland of 3 types; rich in plant species; isolated, little disturbed, valuable for fauna.

Reserve 20095-ca 100 ha; fire regrowth woodland and areas of unburnt woodland rich in species; extremely valuable for fauna, particularly in the future.

Reserve 26150-ca 47 ha; Wandoo woodland, creek; abundant nest sites, worth retaining.

Reserve 28656-ca 16 ha; Wandoo - Jam woodland and York Gum woodland, a small swamp; area salt-prone.

All the reserves examined are of considerable value to fauna and even those damaged by grazing or other disturbance are valuable as resting areas for transient species. Several of the Reserves are rich in plant species and are worthy of more detailed botanical examination. All the reserves should be vested in the Western Australian Wildlife Authority.

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ACKNOWLEDGEMENTS

Jennifer Muir and Ian Simpson assisted in the field. Staff of the
N.A. Herbarium assisted with identifications.

Red-capped Robin (Petroica goodenovii): pair on N boundary

Western Shrike-thrush (Colluricincla harmonica rufiventris): 1 heard

Grey Fantail (Rhipidura fuliginosa): pair seen

Willie Wagtail (R. leucophrys) 1 in open area

Western Warbler (Gerygone fusca): 1 heard

Weebill (Smicrornis brevirostris): common throughout.

Yellow-rumped Thornbill (Acanthiza chrysorrhoa): common particularly in Wandoo.

Singing Honey-eater (Meliphaga virescens): 2 in Wandoo

White-eared Honey-eater (M. leucotis): 4 in Wandoo

Grey Butcherbird (Cracticus torquatus): 1 heard.

Australian Raven (Corvus coronoides): common

Exotic fauna

Dog scats noted : farm house nearby.

Firebreaks and fences

No firebreaks, grasses right up to fence line.

Fenced on W, N and E sides; S side with roadway.

Human usage

Gravel pit and several gravel scrapes present.

Timber has been removed. Permission was granted to Mr. M.H. Leake to run sheep in the Reserve in the summer of 1970. It is possible this may have encouraged grass growth if grazing did occur.

Adjacent uncleared land.

None present.

Opinion and recommendations.

Reserve 6798 is small and contains only woodland. It is poor in nest hollows but is a valuable resting site for transient species. Understorey is most gone, probably as a result of grazing and grass now prohibits much of the native plant regeneration. The Reserve is probably of value for transient fauna and should be retained. I recommend it be left in its present form and that it be vested in the Western Australian Wildlife Authority. A firebreak, particularly on the N side, would be valuable.

APPENDIX 1

Reserve 6798

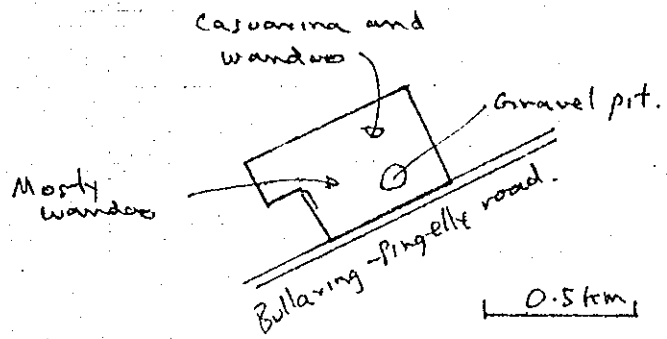
Casuarina woodland

Casuarina huegeliana trees, 2 - 6 m tall, 70-100% cover. Scattered Eucalyptus wandoo to 10 m tall. No understorey but scattered plants of Dampiera juncea, Dryandra hewardiana, Gastrolobium crassifolium, Hakea lissocarpha, Persoonia affin. rufiflora, Spyridium tridentatum, Stypandra imbricata, Thomasia affin. foliosa, Xanthorrhoea ? preissii. Soil pale red, gritty, sandy loam. Well drained but local pooling.

Wandoo woodland

Eucalyptus wandoo trees, 8 - 20 m tall, 2-10% cover over Casuarina heugeliana trees 1.5 - 6 m tall, 70-100% cover. No understorey but scattered plants of Acacia acuminata, A. lasiocalyx, Amyema miquellii, Billardiera variifolia, Daviesia cardiophylla, Dianella revoluta, Hakea prostrata, Stipa elegantissima, Soil pale red, fine sandy loam. Poorly drained.

Reserve 6798



Reserve A12098

Located ca 42 km due E of Pingelly and shown on lithograph 378/8 Fl. Also shown 12 km due S of Bulyee Siding and 15 km SW of Lomos Siding on 1 : 50,000 Lomos sheet (2433-111).

Background

Originally set aside for "Water" on 14 April 1909. Changed to "Protection of Flora" on 5 October 1951 and made "A" class on 23 November 1956.

Physical characteristics

Reserve 12098 is rectangular, ca 1.1 km long (E-W axis) by ca 0.4 km broad (N-W axis). It has a total perimeter of ca 2.9 km and an area of 35.6123 ha. The lowest point on the Reserve is ca 255 m above sea level and the topographic range is 10 m. A high point on the E side of the Reserve is called Stony Hill.

Vegetation

- (1) Jam-York Gum Low Woodland A with mixed shrub understorey.
- (2) Wandoo Open Woodland over Jam and Casuarina Low Woodland A.
- (3) Creek and creek margins with aquatics and marginal trees and shrubs.

Plant species

Twenty one plant species were recorded. The Ruppia found in the creek was not fruiting but appears unlike most common Ruppias'. Seven species recorded are exploited by the wildflower seed trade.

Nest hollows

Abundant nest hollows, mostly in Wandoo trees. Some young trees present.

Weeds

Abundant ephemerals, particularly Ursinia anthemoides

Fire history

Probably not burnt for at least 20 years.

Fauna

Little Pied Cormorant (Phalacrocorax melanoleucos): 2 on creek.

Black Duck (Anas superciliosa): 2 on creek.

Grey Teal (Anas gibberifrons): 5 on creek.

Wood Duck (Chenonetta jubata): 3 on creek.

Crested Pigeon (Ocyphaps lophotes): 3 in woodland W side.

Port Lincoln Parrot (Platycercus zonarius): common

Grey Fantail (Rhipidura fuliginosa): 2 in dense scrub near creek.

Red Wattle-bird (Anthochaera carunculata): 1 in York Gum.

Exotic fauna

Fox diggings/scats and footprints noted.

A dog was sighted. Rabbit scats and warrens presented.

Firebreaks and fences.

No firebreaks, Fenced on all sides.

Human usage

Timber has been removed and the area grazed. Rubbish dumping has been considerable in parts. An old, broken bridge crosses the river near the N boundary. Lithographs show a well on the Reserve, but this could not be found.

Adjacent uncleared land.

Scattered woodland along creek.

Opinion and recommendations

Reserve 12098 is heavily disturbed, and of little value for flora conservation. It is however, a useful resting and nesting site for birds. It is also salt prone and removal of timber will cause expansion of the influence of the salt creek. I recommend Reserve 12098 be retained in its present form and that it be vested in the Western Australian Wildlife Authority.

APPENDIX 2

Reserve 12098

Jam-York Gum Woodland.

Acacia acuminata trees 4-8 m tall and Eucalyptus loxophleba trees 5-12 m tall overall canopy cover 10-30%. Casuarina huegeliana abundant in some areas. Scattered Eucalyptus longicornis trees to 28 m tall. Understorey of mixed shrubs <2% cover. Other plant species recorded were: Dampiera spicigera, Enneapogon caerulescens, Lomandra effusa, Olearia revoluta, Stypandra imbricata, Verticordia ? plumosa, Waitzia acuminata. Soil very pale brown loamy sand. Moderately drained.

Wandoo woodland.

Eucalyptus wandoo trees 8-17 m tall, ca 2% cover over Acacia acuminata and Casuarina huegeliana trees 4-10 m tall 10-30% cover. Also in this area were: Borya nitida, Calytrix affin. fraseri, Harperia lateriflora Lomandra effusa, Stipa elegantissima, and Stypandra imbricata Soil pale brown loamy sand. Moderately drained.

Creek and creek margins

The aquatic Ruppia sp. formed dense clumps on the creek bottom and there were clumps of the alga Nitella sp. Creek margins had Arthrocnemum bidens, Callistemon phoeniceus, Casuarina obesa, Eucalyptus rudis and Melaleuca hamulosa.

Reserve A12098

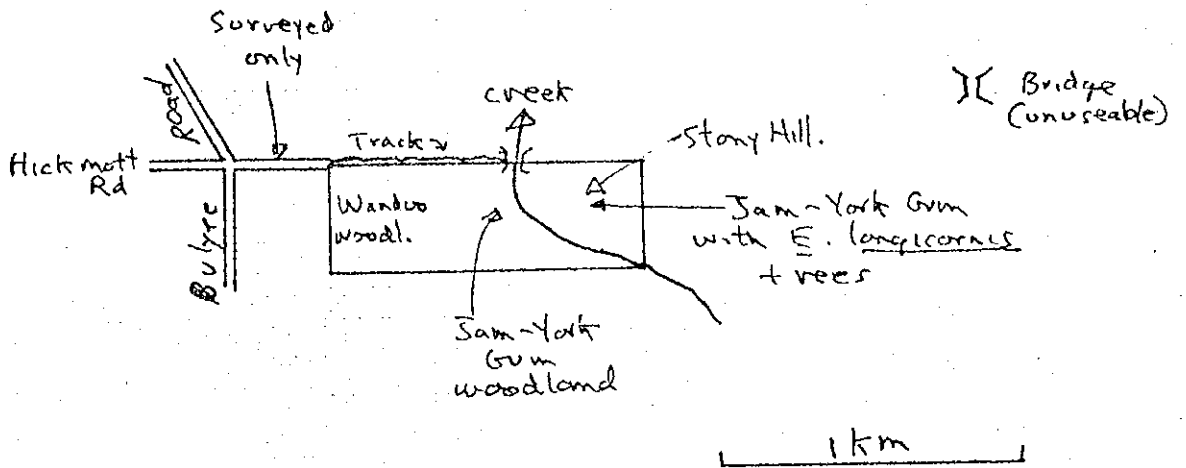




Plate 1 Reserve 12098 showing Jam - York Gum woodland with Casuarina



Plate 2 Creek margin with Flooded Gum and Casuarina obesa.



Plate 3 Creek on granite pavement on Reserve 12098. Arthrocnemum is growing on sides of Creek and Casuarina obesa on the banks.

Reserve 13797

Located ca 10 km SE of Aldersyde Townsite and ca 9 km SW of Kweda Siding.
Shown on lithograph 343/80, D4 and on 1 : 50,000 Mears sheet (2333-11).

Background

Originally set aside for "Water and Camping" on 20 November 1911, and with an area of ca 20 ha. Increased to its present size of ca 36 ha on 3 November 1950 and changed to "Conservation of Flora" on the same date.

Physical characteristics

Reserve 13797 is triangular, ca 1.2 km long (E-W) by ca 0.6 km broad at its wide (W) end. It has a total perimeter of ca 3.1 km and an area of 36.0170 ha. The lowest point is ca 260 m above sea level and there is a topographic range of ca 18 m.

Vegetation

- (1) Wandoo Open Low Woodland A with no understorey
- (2) A floristically very rich mixed Dense Low Heath D

Plant species.

Fifty-one plant species were recorded, of which 15 are exploited by the Wildflower seed trade.

Nest hollows.

Scattered in woodland. No young trees present.

Weeds

Scattered ephemerals only in wet sites

Fire history

No evidence of fire for at least 30 years.

Fauna

Mulga Parrot (Platycercus varius): 7 pairs in Wandoo woodland.

Tree Martin (Hirundo nigricans): numerous flying over Reserve.

Richards Pipit (Anthus novaeseelandiae): on fencelines

White-fronted Chat (Epthianura albifrons): 2 in heath

Black-faced Wood-Swallow (Artamus cinereus): 19 on dead Wandoo tree.

Exotic fauna

Old rabbit warrens noted, very little sign of rabbits in recent past.

Firebreaks and fences

Road on S side is effective firebreak, other sides without firebreaks. Fenced on N and W sides only.

Human usage

Rubbish dumped in some areas, tracks present.

Adjacent uncleared land.

None present.

Opinion and recommendations.

Reserve 13797 has floristically rich heath and an area of woodland, and is a valuable conservation reserve. I recommend it be retained in its present form and that it be vested in the Western Australian Wildlife Authority. Signs prohibiting dumping of rubbish would be valuable additions to the Reserve.

APPENDIX 3

Reserve 13797

Wandoo woodland.

Eucalyptus wandoo trees 4-6 m tall 2-10% cover. No understorey but scattered plants of Calytrix affin. fraseri, Gastrolobium crassifolium, Lomandra effusa and Olearia revoluta

Heath

Mixed shrubs 0.5 m tall, 70-100% cover.

Species recorded were: Acacia filifolia, A. lasiocarpa sedifolia, A. saligna, A. stenoptera, Adenanthos argyraea, Andersonia lehmanniana, Banksia sphaerocarpa, Boronia caurulescens, Calectasia cyanea, Calothamnus quadrifidus, C. sanguineus, Casuarina campestris, C. huegeliana, C. microstachya, Cassutha glabella (on Boronia caurulescens and Melaleuca subtrigona mostly), Comesperma scoparia, Cryptandra myriantha, Daviesia brevisolia, D. cardiophylla, Dryandra cirsioides, D. hewardiana, D. nivea, Gastrolobium hookeri, Goodenia pinifolia, Grevillea pilulifera, Hakea baxteri, H. crassifolia, H. subsulcata, H. varia, Harperia lateriflora, Isopogon drummondii, I. polycephalus, Leucopogon ozothamnoides, Loxocarya fasciculata, Lysinema ciliatum, Melaleuca subtrigona, Mesomelaena uncinata, Persoonia striata, Petrophite squamata, Santalum acuminatum, S. spicatum, Schoenus compressus, Synaphoea petiolaris, S. polymorpha, Verrauxia reinwardtii, Xanthorrhoea reflexa.

Soil is grey loamy sand; excessively well drained.

Reserve 13797

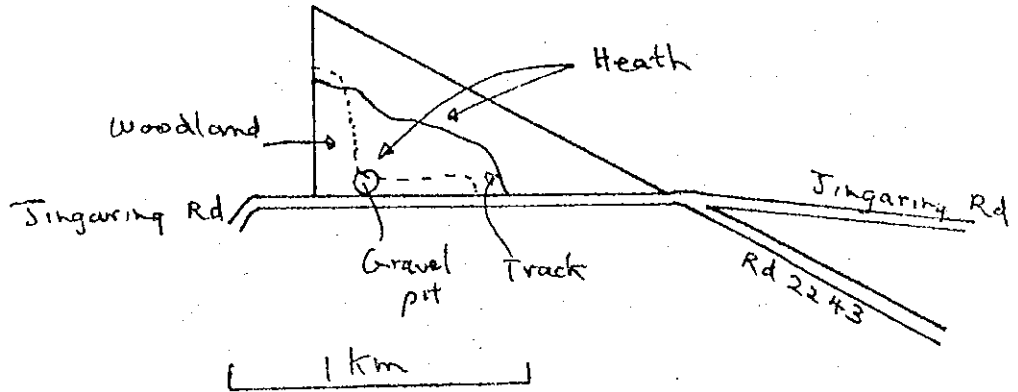




Plate 4 Heath on Reserve 13797 with Wandoo woodland in the distance.

Reserve 20066

Located ca 30 km due ~~E~~ of Pingelly Townsite and shown on lithograph 378/80, DE1. and 1 : 50,000 Mears sheet (2333-11).

Background

Originally set aside for "Timber (Mallet)" on 26 April 1929 and with an area of ca 189 ha. Decreased to present size on 9 November 1962 and changed to "Conservation of Flora and Fauna" on 8 December 1967.

Physical characteristics

Reserve 10066 is rectangular, ca 0.5 km long (N-S axis) by ca 0.4 km broad (E-W axis). It has a total perimeter of ca 2 km and an area of 23.8082 ha. The lowest point on the Reserve is ca 300 m above sea level and there is a topographic range of ca 5 m.

Vegetation

Wandoo Low Woodland A and Low Forest A covers the whole Reserve with additions of Huegels Casuarina or other trees. Understorey variable, fairly rich in species.

Plant species

Forty-six plant species were recorded, of which 9 are exploited by the wildflower seed trade.

Nest hollows

Abundant nest hollows in woodland area. Many young trees present.

Weeds

Many ephemerals in woodland and disturbed area.

Fire history

No evidence of fire for at least 30 years.

Fauna

Nankeen Kestrel (Falco cenchroides) : 1 flying near E boundary of Reserve.

Port Lincoln Parrot (Platycercus zonarius): in Wandoo

Mistletoe Bird (Dicaeum hirundinaceum): in Wandoo

Western Silvereye (Zosterops lateralis gouldii): in Wandoo

Red Wattle-bird (Anthochaera carunculata): 2 in Wandoo

Australian Raven (Corvus coronoides): common

Exotic fauna

Dog footprints and scats noted.

Firebreaks and fences

Wide firebreaks in good condition on the N side and narrow breaks on the S and W sides. A roadway continuous with the E side of the Reserve. Good fences on N, W and S sides.

Human usage

Timber has been removed

Adjacent uncleared land

None present.

Opinion and recommendations.

Reserve 20066 is in excellent condition and supports valuable stands of woodland, some areas with a rich understorey. The Reserve is probably heavily utilised by birds in the breeding season. There is little human disturbance and the Reserve is isolated, increasing its value for transient fauna. I recommend Reserve 20066 be retained in its present form and that it be vested in the Western Australian Wildlife Authority.

APPENXIX 4

Reserve 20066

Wandoo woodland - NW corner on ridge.

Eucalyptus wandoo trees, 4-10 m tall and Casuarina huegeliana trees 8-12 m tall, 30-70% canopy cover over mixed shrubs 0.5 m tall, 10-30% cover. Other plant species recorded were: Acacia lasiocarpa, sedifolia, A. pulchella, Comesperma scoparia, Dampiera juncea, Dryandra cirsioides, Gastrolobium crassifolium G. spinosum, Glischrocaryon flavescens, Hakea lissocarpa, H. petiolaris, Harperia lateriflora, Hibbertia pungens, Isopogon formosus, Loxocarya fasciculata, Persoonia striata, Schoenus compressus. Situated on indurated laterite with soil in pockets. Poorly drained but abundant run-off.

Wandoo woodland - on edge of ridge

As above but Casuarina huegeliana absent and scattered emergent Eucalyptus longicornis to 22-26 m tall present. Plants recorded were: Astroloma pallidum, Dampiera affin. coronata, Daviesia cardiophylla, Dodonaea bursarii folia, Eucalyptus falcata, E. redunca, Gastrolobium crassifolium, G. spinosum, Isopogon formosus, Lepidosperma tenue, Lomandra effusa, Stipa elegantissima, Westringia rigida brachyphylla. Soil grey sandy clay, poorly drained. Eroded granite boulders exposed.

Wandoo woodland - SE corner on flats

Eucalyptus wandoo trees, 5-12 m tall, 10-30% cover. Scattered Eucalyptus astringens and Casuarina huegeliana trees. Mixed shrub understorey to 1.5 m tall but scattered. Other plants recorded were: Acacia pulchella globerrima, Astroloma serratifolium, Borya nitida, Calytrix affin. fraseri, Casuarina humilis, C. microstachya, Caustis dioica, Choretum glomeratum, Daviesia brevifolia, Dianella revoluta, Dryandra cirsioides, Gastrolobium crassifolium G. hookeri, Harperia lateriflora, Hibbertia pungens, Jacksonia raemosa, Lomandra effusa

Persoonia striata, Westringia cephalantha, Xanthorrhoea reflexa.

Soil grey clayey sand; moderately drained.

Disturbed regrowth.

The following species were recorded as regrowth on a recently ploughed firebreak:

Dampiera eriocephala, D. juncea, Daviesia brevifolia, Gastrolobium crassifolium, G. spinosum, Glischrocaryon flavescens, Lepidosperma drummondii. Soil was reddish brown sandy clay with ca 60-80% laterite.

Poorly drained.

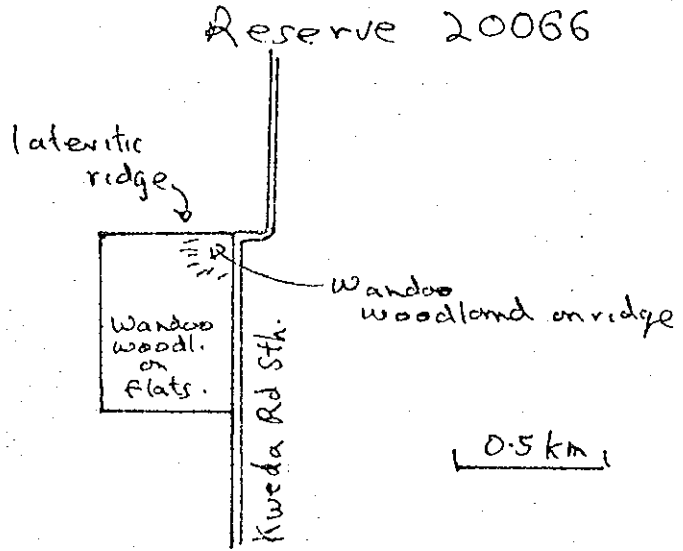




Plate 5 Wandoo woodland on edge of ridge at NW corner of Reserve
20066



Plate 6. Wandoo woodland with mixed shrub understorey. This is on SE
corner of Reserve.

Reserve 20095

Located ca 16 km due E of Pingelly and shown on lithograph 378/80 C-D1. Also shown in part on 1 : 50,000 Pingelly sheet (2332-IV) on the NE corner of the sheet and Woyerling sheet (2332-1) on the NW corner of the sheet.

Background.

Originally set aside for "Timber (Mallet)" on 26 April 1929 and with an area of ca 28 ha. Increased to ca 36 ha on 6 November 1959, then to ca 39 ha on 5 September 1975. Purpose was changed to "Conservation of Flora and Fauna" also in September 1975.

Physical characteristics

Reserve 20095 and adjacent Reserve 20096 are together ca 1.9 km long by ca 0.5 km broad. They have a total perimeter of ca 5.7 km and an area of 99.5881 ha. The lowest point on the Reserve is ca 360 m above sea level and the altitudinal range ca 40 m.

Vegetation

- (1) Fire regrowth Brown Mallet Low Forest B over Gastrolobium Heath B
- (2) Huegel's Casuarina Dense Low Forest A
- (3) Unburnt Huegels Casuarina Dense Low Forest B with numerous plant species.

Plant species.

Twenty-two plant species were recorded, of which 6 are exploited by the wildflower seed trade.

Nest hollows

None, all young trees in post-fire regrowth. Few old, dead trees from fire, but do not contain nest hollows.

Weeds

None recorded

Fire history

Reserve has been burnt within the last 7 years.

Fauna

Pallid Cuckoo (Cuculus pallidus): 2 heard calling.

Weebill (Smicromis brevirostris): common

Chestnut-rumped Thornbill (Acanthiza uropygialis): 4 in unburnt clump of shrubs.

Exotic fauna

None recorded.

Firebreaks and fences

Marginal firebreaks 5 m wide; marginal fences.

Human usage

Some timber removed from woodland.

Adjacent uncleared land

Reserve 20096 (ca 64 ha) is contiguous with the S end of Reserve 20095.

Remarks
At the time of survey lithograph 378/80 was used and it was not realised Reserve 20096 was cancelled. For this reason only the northern portion of the Reserve was inspected.
Opinion and recommendations.

Reserve 20095 currently provides a large area of woodland in an early seral stage. In the future it will provide a valuable resting and nest area for birds, unlike many other reserves where trees are senescent but no young trees are present to provide nest hollows in the future.

At the present time the reserve is low in plant species, understorey being dominated by post-fire, rapid-regenerating species. In the future richness may improve, providing other species have not been killed by the fire. The small areas which survived the fire unburnt are floristically rich and contain several plant species of interest. I recommend Reserve 20095 be retained in its present form and that it be vested in the Western Australian Wildlife Authority.

APPENDIX 5

Reserve 20095

Brown Mallet woodland

Eucalyptus astringens trees, 1.5 m tall, 30-70% cover and Gastrolobium crassifolium, shrubs 1.5 m tall, 30-70% cover. Occasional Eucalyptus salmonphloia 20-24 m tall and E. falcata 4 m tall are present. Scattered Acacia acuminata, A. colletioides, Astroloma pallidum, and Casuarina huegeliana present. Vegetation is post-fire regrowth less than 7 years old. Soil is weak red medium clay with ca 70% laterite pebbles. Poorly drained.

Casuarina woodland

Casuarina huegeliana trees, 6m tall, 70-100% canopy cover. No understorey.

Unburnt woodland.

Casuarina huegeliana trees 5 m tall, 70-100% cover with scattered Eucalyptus accedens trees. Other species recorded were: Acacia celastrifolia, A. pulchella glaberrima, Astroloma pallidum, Dillwynia cinerascens, Dryandra cuneata, Gastrolobium crassifolium, G. trilobium, Goodenia pinifolia, Grevillea pulchella, Hakea petiolaris, Hibbertia enervia H. rupicola, Hovea chorizemifolia, Lepidosperma drummondii, L. tenue. Soil almost 100% laterite with skeletal soil in cracks. Poorly drained but runoff excessive.

Reserve 20095

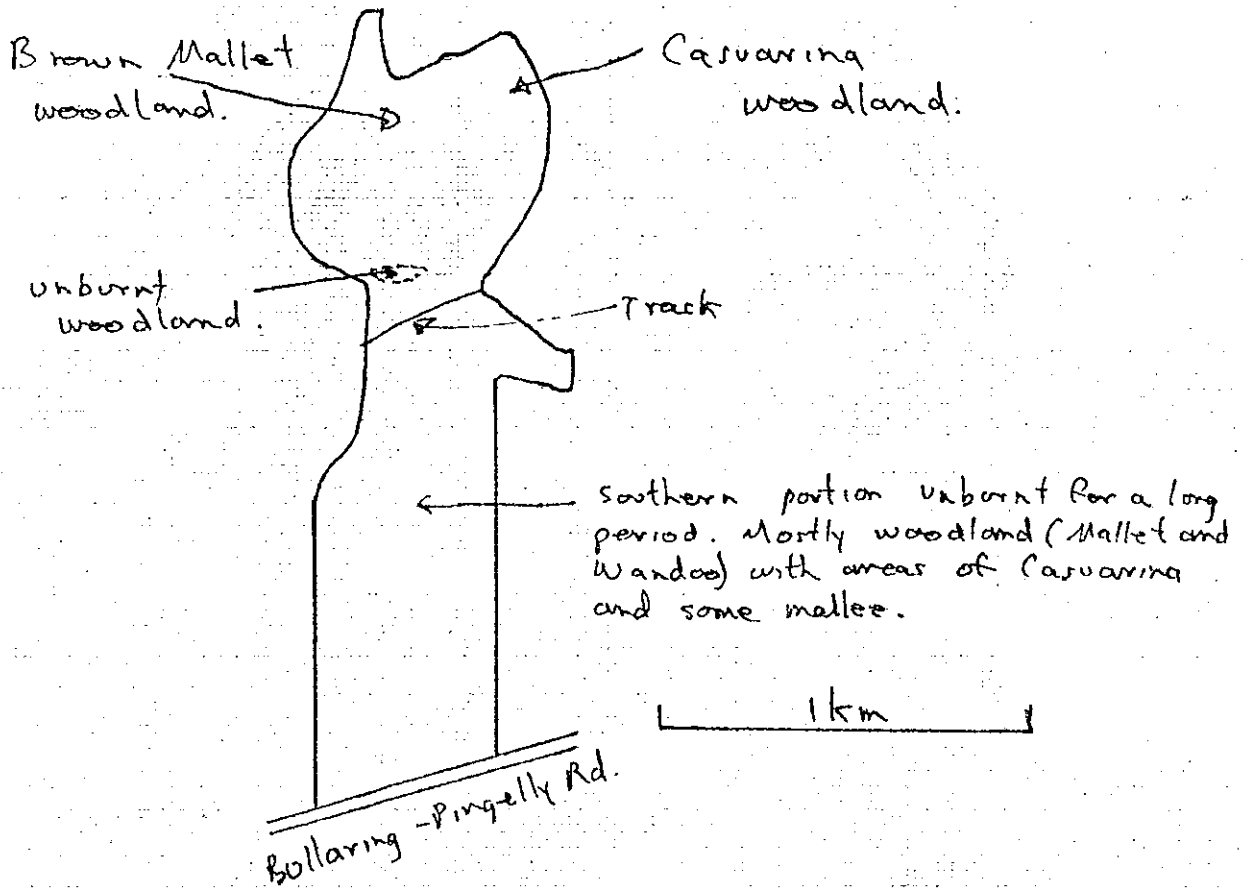




Plate 7. Brown Mallet regrowth woodland on NW corner of Reserve 20095. Understorey is completely dominated by Gastrolobium.



Plate 8. Unburnt area of Casuarina and Eucalyptus accedens

Reserve 26150

Located ca 8 km W of Pingelly and shown on lithograph 378/80 A1-2 and partly on 1 : 50,000 Pingelly sheet (2332-IV)

Background

Originally set aside 22 December 1961, for "Conservation of Flora"

Physical characteristics

Reserve 26150 is rectangular, ca 1.3 km long (E-W axis) by ca 0.4 km broad (N-S axis). It has a total perimeter of ca 3.5 km and an area of 46.6906 ha. Lowest point on the Reserve is ca 290 m above sea level. There is a topographic range of ca 5 m.

Vegetation

Wandoo Open Woodland over Gastrolobium Open Dwarf Scrub C over a grass and sedge ground cover. Some areas of Wandoo with abundant Huegel's Casuarina. A shallow creek has Huegel's Casuarina Dense Low Forest A.

Plant species.

Twenty-seven native plant species were recorded, of which 7 are exploited by the wildflower seed trade. A Lomandra of uncertain affinities was collected.

Nest hollows.

Abundant; some young trees present.

Weeds

Abundant ephemeral weeds and grasses.

Fire history.

Some burnt in May 1979, remainder less than 5 years old. Most fires

have been in the grassy areas and have little effect on the canopy. The Reserve has been burnt frequently.

Fauna

Banded Plover (Vanellus tricolor): 4 in paddock adjacent to Reserve

Port Lincoln Parrot (Platycercus zonarius): common

White-backed Swallow (Cheramoeca leucosterna): 4 over Reserve

Weebill (Sanicornis brevirostris): Common

Yellow-rumped Thornbill (Acanthiza chrysorrhoea): Common

Additionally K.J. Wallace of Fisheries and Wildlife recorded the following species on 8 June 1979: Singing Honeyeater, Rufous tree-creeper, Australian Raven, Rufous Whistler, Willie Wagtail (30 April 1979), Restless Flycatcher, Grey Fantail, Cuckoo (unidentified) and Black-capped Sitella.

Exotic fauna

None recorded.

Firebreaks and fences

Firebreaks on N and E sides from roadways; S side has a track. Fenced on S and W sides.

Human usage.

Gravel pit, recently used. Timber has been removed and sheep carcasses dumped. There is a track along the S boundary.

Adjacent uncleared land

Reserves 24877 (ca 7 ha) and 8550 (ca 17 ha) are contiguous with the Reserve.

Opinion and recommendations.

Area is low lying and salt-prone. Eucalyptus rudis grows along a creek on Reserve 8550 and indicates seasonal waterlogging. The Woodland provides abundant nest sites and the understorey, although sparse, contains several plant species of interest, including a Lomandra of uncertain affinities. I recommend Reserve 26150 be retained in its present form, combined with Reserve 8550, and vested in the Western Australian Wildlife Authority.

APPENDIX 6

Reserve 26150

Wandoo Woodland - W end

Eucalyptus wandoo trees, 16-24 m tall, 2-10% canopy cover over Gastrolobium crassifolium and mixed shrubs, 1 m tall, 2-10% cover over Enneapogon caerulescens grass, Borya nitida herbs and Loxocarya pubescens sedge, 20 cm tall, 30-70% cover. Other plant species recorded were: Acacia pulchella, Astroloma pallidum, A. serratifolium, Casuarina huegeliana, Cryptandra dielsii, Dryandra cirsioides, D. hewardiana, Gastrolobium hookeri, Glischrocaryon flavescens, Hakea lissocarpha, Harperia lateriflora, Lepidosperma pubisquameum, L. tenue, Lomandra effusa, L. sp. 2, Stipa elegantissima, Xanthorrhoea ? preissii. Soil is pinkish grey, sandy clay poorly drained.

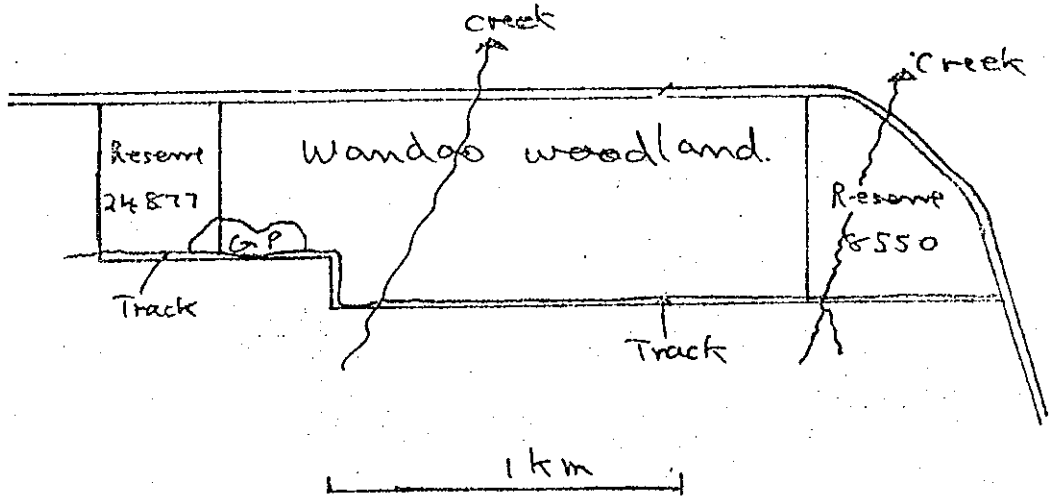
Wandoo woodland - E end

As above but trees 8-18 m tall and only 1-2% cover with Casuarina huegeliana trees 4-5 m tall, 2-10% cover. Acacia acuminata and Xanthorrhoea ? preissii are more abundant, and Dryandra cirsioides (type A), Lechenaultia sp., Olearia rudis and Tribonanthes uniflora are present. Ground cover of Borya nitida 10 cm tall 70-100% cover.

Creek

A shallow waterway has marginal stands of Casuarina huegeliana trees 7 m tall, 70-100% cover. No understorey. The creek on Reserve 8550 has Eucalyptus rudis trees present

Reserve 26150



GP gravel pit



Plate 9. Reserve 26150: W end where there is understorey development.



Plate 10. Eastern end; Wandoo-Casuarina woodland over Borya.

Reserve 28656

Located at Datanning Townsite, ca 26 km NE of Wandering townsite and shown on lithograph 379/80, Fl-2.

Background.

Datanning Townsite was first gazetted for "Conservation of Flora" on 30 June 1967.

Physical characteristics

Reserve 28656 is ca 0.7 km long (E-W axis) by ca 0.2 km broad (N-S axis) It has a total perimeter of ca 2.1 km and an area of 15.7069 ha. No contour maps or spot altitudes are available. Topographic range within the Reserve is ca 8 m.

Vegetation.

Wandoo, Jam and Flooded Gum Low Woodland A; and York Gum Woodland on the western end of the Reserve. A creek runs the length of the Reserve. A swamp with couch grass and Acacia saligna thicket is present

Plant species

Ten native plant species were recorded of which 4 are exploited by the wildflower seed trade.

Nest hollows

Very few, most trees are York Gum which do not form hollows. Scattered hollows in Wandoo.

Weeds

Abundant Guildford Grass (Romulea rosea) and ephemeral weeds throughout the Reserve.

Fire history

No evidence of fire for some time but grass fires would leave little indication of their passing.

Fauna

Kookaburra (Dacelo gigas): 2 in woodland

Black-faced Cuckoo-shrike (Coracina novae-hollandiae): 2 seen at W end.

Red-capped Robin (Petroica goodenovii) pair seen at W end.

Western Warbler (Gerygone fusca): heard calling.

Exotic fauna

Dog scats and footprints seen. Mice (Mus musculus) have made hundreds of burrows throughout the Reserve.

Firebreaks and fences.

Roadway on S side and wide firebreak on part of N side of Reserve.

Fenced on N and E sides.

Human usage

Timber has been removed and much of the Reserve disturbed by various human activities. Old gravel pits are present. Parts have been cleared.

Adjacent uncleared land.

Most of the adjoining townsite area is uncleared bushland. About 19 ha is woodland. A cemetery site of uncleared bushland is contiguous with the W end of Reserve 28656

Opinion and recommendations.

Reserve 28656 is valuable as a rest area for transient fauna and supports a few birds all year. The water course is seasonal but provides watering points for fauna in winter. Being low lying ground the land is salt-prone, as supported by the halophytic sedges along the creek margins. Understorey is mostly absent but contains no noxious weeds and probably requires little or no management.

I recommend Reserve 28656 be retained in its present form and that it be vested in the Western Australian Wildlife Authority.

APPENDIX 7

Reserve 28656

Eastern end.

Eucalyptus wandoo, Acacia acuminata and some E. rudis trees, variable height up to 15 m tall, overall canopy cover ca 10-30%. Also recorded were Acacia saligna, Muhlenbeckia adpressa, Patersonia sp. and Stypandra imbricata. A creek runs through the area and has the garden escapees Agapanthus orientalis, Freesia refracta, Narcissus jonquilla (white and yellow varieties) and Oxalis flava growing on the creek bank. A disused tennis court on the recreation ground has Acacia acuminata and Casuarina huegeliana regrowth.

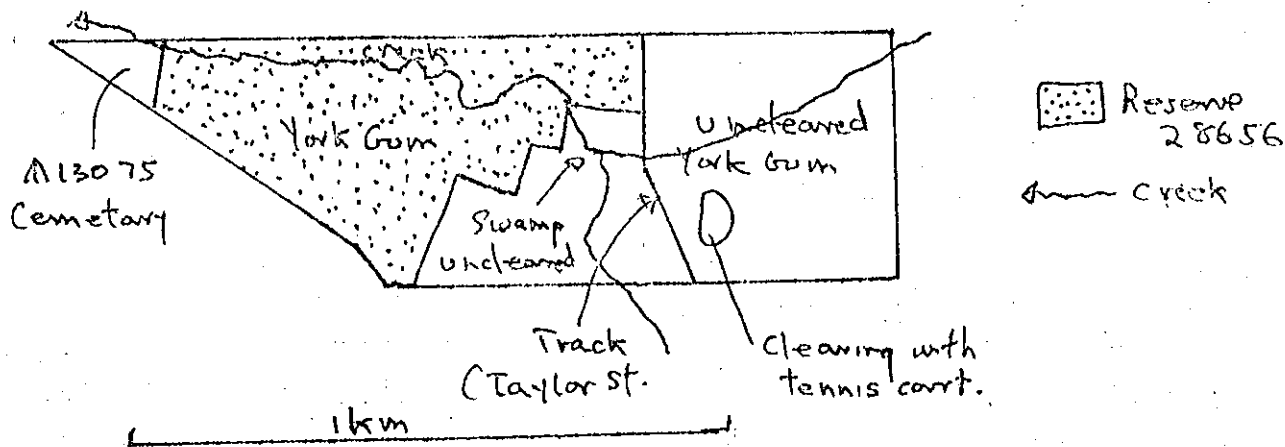
Western end

Eucalyptus loxophleba trees 8-18 m tall 10-30% cover over scattered Acacia acuminata trees. The weeds Guildford Grass (Romulea rosea) and Portulaca oleracea are present. Juncus pallidus grows along the creek at this point.

Swamp

Dense cover of Cynodon dactylon grass and marginal clumps of Acacia saligna. Some Juncus pallidus present.

Reserve 28656



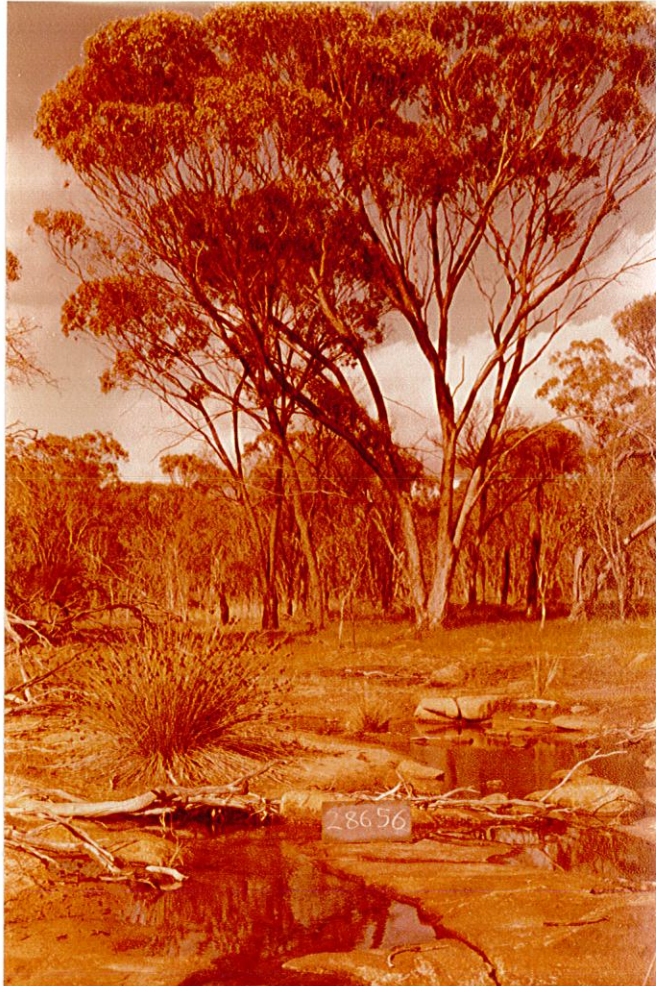


Plate 11. Creek at W end of Reserve 28656. York Gum woodland in background.