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SOME NATURE RESERVES OF
THE WESTERN AUSTRALIAN
WHEATBELT
PART 21: CORRIGIN SHIRE

B.G. MUIR

WESTERN AUSTRALIAN MUSEUM

1979

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SOME NATURE RESERVES OF THE

CORRIGIN SHIRE

1979

B.G. MUIR

Introduction

Corrigin Shire is in the central wheatbelt and has an area of ca 3095 square km. There are 7 Nature Reserves within the Shire, totalling ca 8 square km or ca 0.26% of the area of the Shire. The largest Nature Reserve is only ca 497 ha (Noonalling and Whitewater Reserve: 24428), all the remainder being 100 ha or less in area. One reserve ('A' 16714) has 'A' classification but is unvested. Reserve 9426 is vested in the Minister for Water Supply, Sewerage and Drainage, Reserve 24428 in the Western Australian Wildlife Authority and Reserve 34000 in the Minister for Works. The remaining 4 reserves are unvested.

This survey was carried out in July 1979 and consisted of brief examinations of 2 reserves; 'A' 16714 and 25546. Reports are attached.

Methodology

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 were 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 specifically 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.

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.

TABLE 1: VEGETATION CLASSIFICATION AS USED IN WHEATBELT SURVEY

| LIFE FORM/HEIGHT CLASS | CANOPY COVER | | | |
|------------------------|---------------------|-------------------------|--------------------|------------------------|
| | DENSE d 70-100% | MID-DENSE c 30-70% | SPARSE i 10-30% | VERY SPARSE f 2-10% |
| T Trees >30m | Dense Tall Forest | Tall Forest | Tall Woodland | Open Tall Woodland |
| M Trees 15-30m | Dense Forest | Forest | Woodland | Open Woodland |
| LA Trees 5-15m | Dense Low Forest A | Low Forest A | Low Woodland A | Open Low Woodland A |
| LB Trees <5m | Dense Low Forest B | Low Forest B | Low Woodland B | Open Low Woodland B |
| KT Mallee tree form | Dense Tree Mallee | Tree Mallee | Open Tree Mallee | Very Open Tree Mallee |
| KS Mallee shrub form | Dense Shrub Mallee | Shrub Mallee | Open Shrub Mallee | Very Open Shrub Mallee |
| S Shrubs >2m | Dense Thicket | Thicket | Scrub | Open Scrub |
| SA Shrubs 1.5-2.0m | Dense Heath A | Heath A | Low Scrub A | Open Low Scrub A |
| SB Shrubs 1 0-1.5m | Dense Heath B | Heath B | Low Scrub B | Open Low Scrub B |
| SC Shrubs 0.5-1.0m | Dense Low Heath C | Low Heath C | Dwarf Scrub C | Open Dwarf Scrub C |
| SD Shrubs 0.0-0.5m | Dense Low Heath D | Low Heath D | Dwarf Scrub D | Open Dwarf Scrub D |
| P Mat plants | Dense Mat Plants | Mat Plants | Open Mat Plants | Very Open Mat Plants |
| H Hummock Grass | Dense Hummock Grass | Mid-Dense Hummock Grass | Hummock Grass | Open Hummock Grass |
| GT Bunch grass >0.5m | Dense Tall Grass | Tall Grass | Open Tall Grass | Very Open Tall Grass |
| GL Bunch grass <0.5m | Dense Low Grass | Low Grass | Open Low Grass | Very Open Low Grass |
| J Herbaceous spp. | Dense Herbs | Herbs | Open Herbs | Very Open Herbs |
| VT Sedges >0.5m | Dense Tall Sedges | Tall Sedges | Open Tall Sedges | Very Open Tall Sedges |
| VL Sedges <0.5m | Dense Low Sedges | Low Sedges | Open Low Sedges | Very Open Low Sedges |
| X Ferns | Dense Ferns | Ferns | Open Ferns | Very Open Ferns |
| Mosses, liverwort | Dense Mosses | Mosses | Open Mosses | Very Open Mosses |

Results and discussion

The features of the reserves can be summarised as:

Reserve A16714 - ca 28 ha; 2 woodlands, 1 shrubland; useful for fauna and as a windbreak; requires rubbish dump clean-up.

Reserve 25546 - ca 16 ha; wandoo woodland, small area mallee, 2 types shrubland; species rich heath; valuable for transient birds.

Both the reserves examined are worthy of retention and I recommend they be vested in the Western Australian Wildlife Authority.

References

MUIR, B.G. (1977). Vegetation and habitat of Bendering Reserve.

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Rec. West. Aust. Mus. Suppl. no. 3.

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NORTHCOTE, K.H. (1971). A factual key for the recognition of Australian soils. Glenside, S.A. : C.S.I.R.O./Rellim.

Located ca 19 km SE of Corrigin Townsite and shown on lithographs 344/80, DE4 and 377/80, DE1, and 1:50,000 Kurrenkutten Sheet (2533-111).

Background

Originally set aside for "Camping and Public Utility", with an area of ca 40 ha, on 1 June 1917. It was decreased to its present area of ca 28 ha on 15 November 1940 and made class "A" on 5 December 1952 at which time it was declared for "Protection of Flora".

Physical characteristics

Reserve 16714 is irregular 'L' shaped, with a total perimeter of ca 2.8 km and an area of 27.5378 ha. The lowest point on the Reserve is ca 290m above sea level and there is a topographic range of ca 30m.

Vegetation

- (1) York Gum Dense Forest over Jam Open Low Woodland A.
- (2) Jam Low Woodland A over Low Grass.
- (3) Tamma Thicket over Baeckea Open Dwarf Scrub C over Very Open Low Grass.

Plant species

Twenty plant species were recorded, of which 7 are exploited by the wildflower seed trade.

Nest hollows

A few hollows are present in woodland at the S end of the Reserve. There are very few young trees present.

Weeds

Abundant ephemerals throughout the Reserve.

Fire history

No evidence of fire for at least 30 years.

Fauna

Crested Pigeon (Ocyphaps lophotes): 2 flying across road.

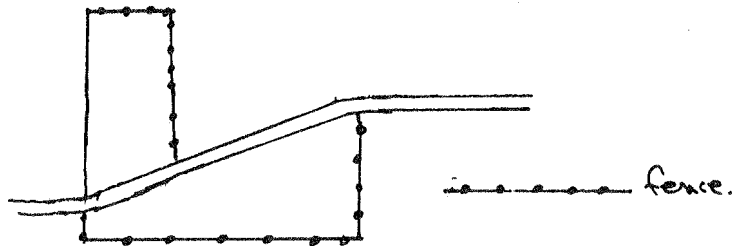
Port Lincoln Parrot (Platycercus zonarius): 2 in Jam tree.

Exotic fauna

Dog footprints and scats and rabbit scats were noted.

Firebreaks and fences

No firebreaks, but roadway separates parts of the Reserve (refer map). Fences as shown below.



Human usage

Some timber has been removed. The N portion of the Reserve has a fairly large rubbish dump.

Adjacent uncleared land

About 200 ha of uncleared land are contiguous with the Reserve. This land is detailed in the map.

Opinion and recommendations

Reserve 16714 is a useful rest site for transient birds and a valuable windbreak for nearby farms. Most of the land is not suitable for farming. I feel the Shire should be approached to clean up the rubbish dump. The nature of the soil prevents its being buried, but it could probably be heaped up more than at present and perhaps covered with soil. A log could be placed across the track and a sign installed indicating that rubbish

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dumping is illegal. Otherwise I feel the Reserve is probably best left as it is, and that it be vested in the Western Australian Wildlife Authority.

APPENDIX 1

Reserve A16714

York Gum woodland

Eucalyptus loxophleba trees, 10-16m tall 70-100% cover over Acacia acuminata trees 4-6m tall, ca 1-2% cover. Understory of scattered grasses and scattered Eucalyptus salmonophloia present to 20m tall. Also recorded were: Gahnia ancistrophylla, Hakea preissii, Lepidosperma drummondii, L. tenue, and Santalum spicatum. Soil pinkish grey sandy loam; well drained.

Jam woodland

Acacia acuminata trees, 2-6m tall, 10-30% cover over Enneapogon caerulescens grass, 30cm tall, 30-70% cover. Also present were: Acacia multispicata, Dianella revoluta, Lepidosperma gracile, Waitzia acuminata. Soil pinkish grey loamy sand; well drained.

Tamma shrubland

Casuarina campestris shrubs, 1-3.5m tall, 30-70% cover over Baeckea crispiflora shrubs 1m tall 2-10% cover over Enneapogon caerulescens 30cm tall, 2-10% cover. Also present were Borya nitida, Cryptandra myriantha, Lepidosperma angustatum, Stipa elegantissima, Stylidium repens, Stypandra imbricata.

Soil yellow sandy clay with ca 10% laterite, moderately drained.

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A 16714

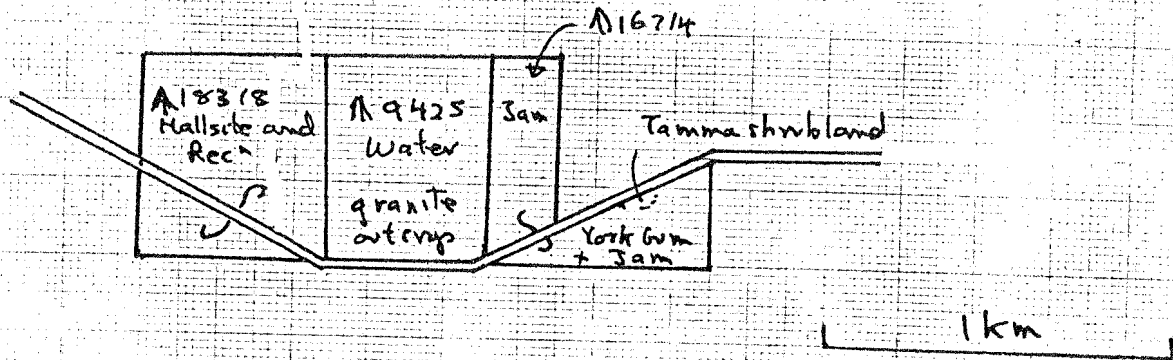




Plate 1. Reserve 16714 showing an area of Jam woodland over grass.

Reserve 25546

Located ca 3km SW of Lomos Siding and shown on lithograph 344/80 A3-4 and 1:50,000 Lomos sheet (2433-111).

Background

Originally set aside for "Conservation of Flora" on 12 December 1960.

Physical characteristics

Reserve 25546 is nearly square, ca 0.5km in N-S axis and 0.4km in E-W axis. Total perimeter is ca 1.7km and it has an area of 16.1874 ha. Lowest point on the Reserve is ca 298m above sea level and there is a topographic range of ca 13m.

Vegetation

- (1) Wandoo Open Woodland.
- (2) Black Marlock mallee in a small clump.
- (3) Tamma Scrub over Dryandra and mixed Low Heath C.
- (4) Tamma/Hakea Dense Thicket over Dryandra and Melaleuca Low Heath C.

Plant species

Forty-eight species were collected, of which 12 are exploited by the wildflower seed trade.

Nest hollows

Abundant nest hollows in woodland, and a few in mallee. Very few young trees or mallee present.

Weeds

Ephemerals on tracks, and a few in woodland. Gravel pit has Cucumis myriocarpus, Ptilotus polystachys and Ricinus communis (Castor-oil bush).

Fire history

No evidence of fire for at least 30 years.

Fauna

Port Lincoln Parrot (Platycercus zonarius) : 2 in Wandoo.

Yellow-throated Miner (Manorina flavigula) : flock of 25 in Wandoo.

Red-wattle Bird (Anthochaera carunculata) : 2 in Wandoo.

Australian Raven (Corvus coronoides) : 2 flying over Reserve.

Exotic fauna

Rabbit scats and diggings noted.

Firebreak and fences

No firebreaks; poor fences on W side, fairly good fences on E and S sides. Roadway on N boundary.

Human usage

Gravel pit, gravel scrapes, rubbish dumps and timber removal are the major disturbances.

Adjacent uncleared land

Some uncleared land contiguous with SW corner of the Reserve.

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Opinion and recommendations

Reserve 25546 is in fairly good condition and supports a very rich heath and an area of woodland. The isolation of the Reserve makes it valuable for transient fauna, and the abundant nest hollows are of value to birds. I recommend that signs be erected on the Reserve prohibiting further rubbish dumping, but that otherwise the Reserve be left as it is. I suggest that Reserve 25546 be vested in the Western Australian Wildlife Authority.

APPENDIX 2

Reserve 25546

Wandoo woodland

Eucalyptus wandoo trees 16-26 m tall, 2-10% cover. No understory. Other species present were: Dianella revoluta, Gastrolobium crassifolium, and Melaleuca laxiflora. Soil was red, light medium clay with 90-95% laterite pebbles.

Black Marlock mallee

Small area of Eucalyptus redunca shrub mallee of variable density and height. Acacia pulchella glaberrima and Melaleuca platycalyx also present.

Tamma shrubland

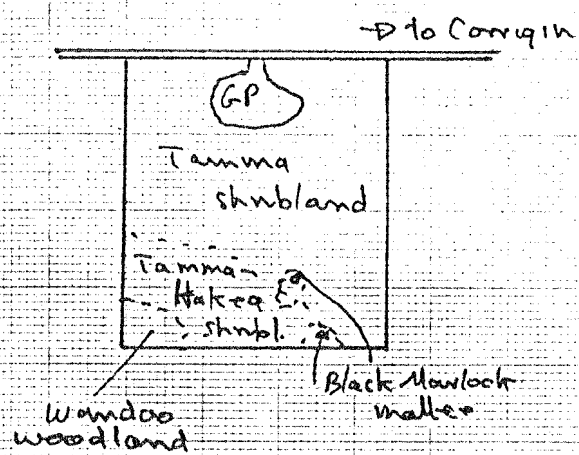
Casuarina campestris shrubs, 2-4 m tall, 10-30% canopy cover over Dryandra cirsioides and mixed shrubs, 1 m tall, 30-70% canopy cover. Scattered emergent Eucalyptus macrocarpa and Hakea subsulcata. Other species recorded were: Astroloma serratifolium, Baeckea crispiflora, Banksia sphaerocarpa, Beaufortia micrantha, Calytrix empetrioides, Chamaexeros fimbriata, Choretrum pritzellii, Cryptandra myriantha, Dampiera juncea, Daviesia acanthoclona, Ecdeiocolea monostachya, Gastrolobium parvifolium, G. spinosum, Grevillea hookerana, Hakea baxteri, H. incrassata, H. scoparia, Hibbertia pungens, Lepidosperma drummondii, Leptospermum erubescens, Leucopogon carinatus, L. crassifolius, Lyginea barbata, Lysinema ciliatum, Mesomelaena uncinata, Opercularia vaginata, Persoonia striata, Phebalium tuberculatum, Pityrodia axillaris, Santalum acuminatum, Schoenus subbulbosus and Synaphaea polymorpha. Soil is yellow brown loamy sand with ca 80% laterite pebbles. Some area of laterite pavement. Well drained but localised pooling. A gravel scrape in the area had reddish yellow loamy sand 0.5 m deep over laterite.

Tamma/Hakea shrubland

Casuarina campestris shrubs and Hakea subsulcata shrubs, 2-4 m tall, 70-100%

canopy cover over Dryandra cirsioides and Melaleuca seriata 1 m tall, 30-70% canopy cover. Also present were Banksia sphaerocarpa, Ecdeiocolea monostachya, Harperia sp., Hibbertia pungens, Isopogon divergens, Petrophile trifida, Santalu acuminatum. Soil yellow brown, light sandy clay with ca 90% laterite pebbles.

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Reserve 25546



GP = gravel pit

0.5 cm



Plate 4. Tamma/Hakea subsulcata shrubland on Reserve 25546.

